

FT-736R

TECHNICAL SUPPLEMENT

**YAESU MUSEN CO., LTD.
C.P.O. BOX 1500
TOKYO, JAPAN**

FT-736R TECHNICAL SUPPLEMENT



This manual is intended to serve as a supplement to the FT-736R Operating Manual. Detailed information regarding functions, installation, interconnections and operation has been provided in the Operating Manual, and is not reprinted herein. Therefore, this supplement is not intended to serve as an independent reference, but to be used in conjunction with the information provided in the Operating Manual.

Because there are nearly five hundred semiconductor devices in the FT-736R, circuit description information is provided in the form of numerous block diagrams. We hope that this manner of providing functional information proves to be more convenient for the owner and technician than would a lengthy verbal description. Those readers unfamiliar with the basic types of analog and digital circuits that serve as the building blocks of the FT-736R are encouraged to study instructional material, such as that provided in handbooks on amateur radio and digital circuit design, before attempting to understand the design of the FT-736R. Each block in the block diagrams represents one such basic circuit, while the

Each block in the block diagrams represents one such basic circuit, while the Component Applications List provides additional details for each semiconductor. General information on integrated circuits and their applications is available in the data provided by the IC manufacturers. Specific circuit details are provided in the schematic diagrams in this manual.

While we believe the technical information in this manual is correct, Yaesu assumes no liability for damage that may occur as a result of typographical or other errors that may be present. Your cooperation in pointing out any inconsistencies in the technical information would be appreciated.

Yaesu Musen reserves the right to make changes in the circuitry of this transceiver, in the interest of technological improvement, without obligation to notify owners or to modify any sets produced prior to the modification.

CONTENTS

CIRCUIT BOARD ACCESS	1
RX UNIT PARTS LAYOUT.....	3
RX UNIT CIRCUIT DIAGRAM	5
TX UNIT PARTS LAYOUT	6
TX UNIT CIRCUIT DIAGRAM	8
AF UNIT PARTS LAYOUT/CIRCUIT DIAGRAM.....	9
144MHz MAIN UNIT PARTS LAYOUT	10
144MHz MAIN UNIT CIRCUIT DIAGRAM	12
430MHz RF UNIT PARTS LAYOUT	13
430MHz RF UNIT CIRCUIT DIAGRAM	15

TOP COV

The follow
removing t

T
1
1
4
4
4
A
F
1/2

430MHz PLL UNIT PARTS LAYOUT 10
 430MHz PLL UNIT CIRCUIT DIAGRAM17
 CNTL UNIT PARTS LAYOUT 18
 CNTL UNIT CIRCUIT DIAGRAM 20
 DISPLAY, REG and PROTECTOR UNIT PARTS LAYOUT 21
 DISPLAY CIRCUIT DIAGRAM 23
 SW, ENCODER and VR UNIT PARTS LAYOUT 24
 CONNECTION DIAGRAM 25
 BLOCK DIAGRAM 26
 SIGNAL TRACING (SSB MODE) 27
 SIGNAL TRACING (CW MODE) 28
 SIGNAL TRACING (FM MODE) 29
 SEMICONDUCTOR CROSS-REFERENCE 30
 EXPLODED VIEW 31
 50MHz BAND MODULE (FEX-736-50) OPTION 33
 220MHz BAND MODULE (FEX-736-220) OPTION 39
 1200MHz BAND MODULE (FEX-736-1.2) OPTION 45
 LEVEL DIAGRAM (144MHz RX) 51
 LEVEL DIAGRAM (430MHz RX) 52
 LEVEL DIAGRAM (144MHz TX) 53
 LEVEL DIAGRAM (430MHz TX) 54

 ALIGNMENT 55
 ALIGNMENT (PLL) 57
 ALIGNMENT (Transmitter) 60
 ALIGNMENT (Receiver) 64
 ALIGNMENT (FEX-736-50) 69
 ALIGNMENT (FEX-736-220) 72
 ALIGNMENT (FEX-736-1.2) 76

 PARTS LIST 81

To remov
 screws (4
 Figure 1).
 as not t
 Unplug t
 Unit befor

44MHz PA UI
 OTECTOR UI
 MHz MAIN UI

TX UI

AF UI

CIRCUIT BOARD ACCESS

TOP COVER

The following units (pcb's) are accessed by removing the top cover:

TX Unit
 144 MHz Main Unit
 144 & 430 MHz PA Units
 430 MHz PLL Unit
 430 MHz RF Unit
 430 MHz Front End Unit
 AF Unit
 Protector Unit
 $\frac{1}{2}$ of RX Unit

To remove the top cover, remove the eight screws (4 each marked "★" or "※") in Figure 1). Then lift the cover off slowly so as not to stress the loudspeaker wires. Unplug these wires from J3016 on the RX Unit before pulling the cover away.

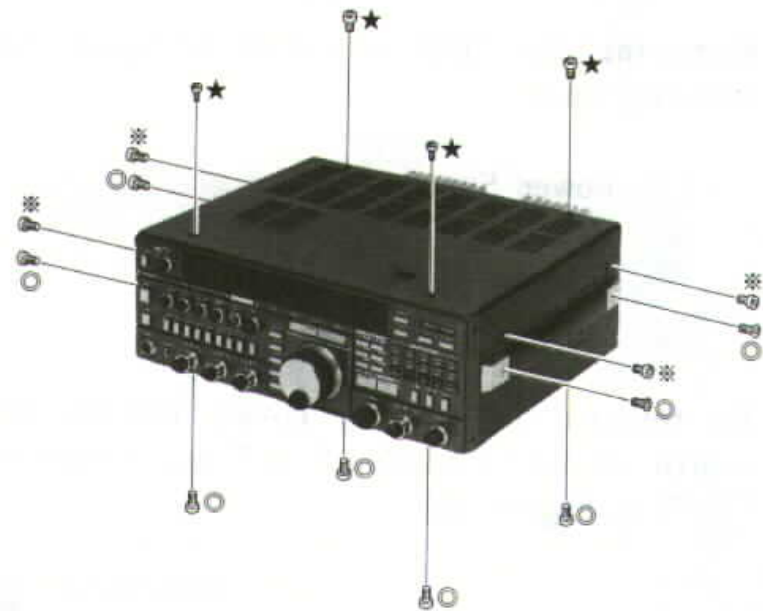
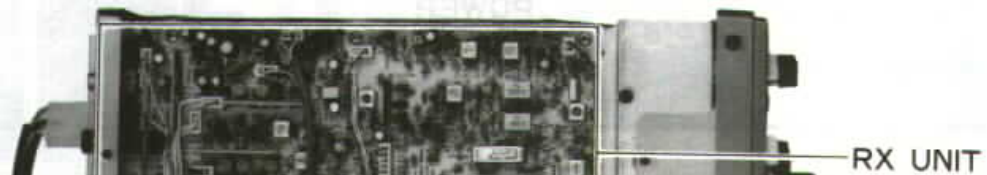


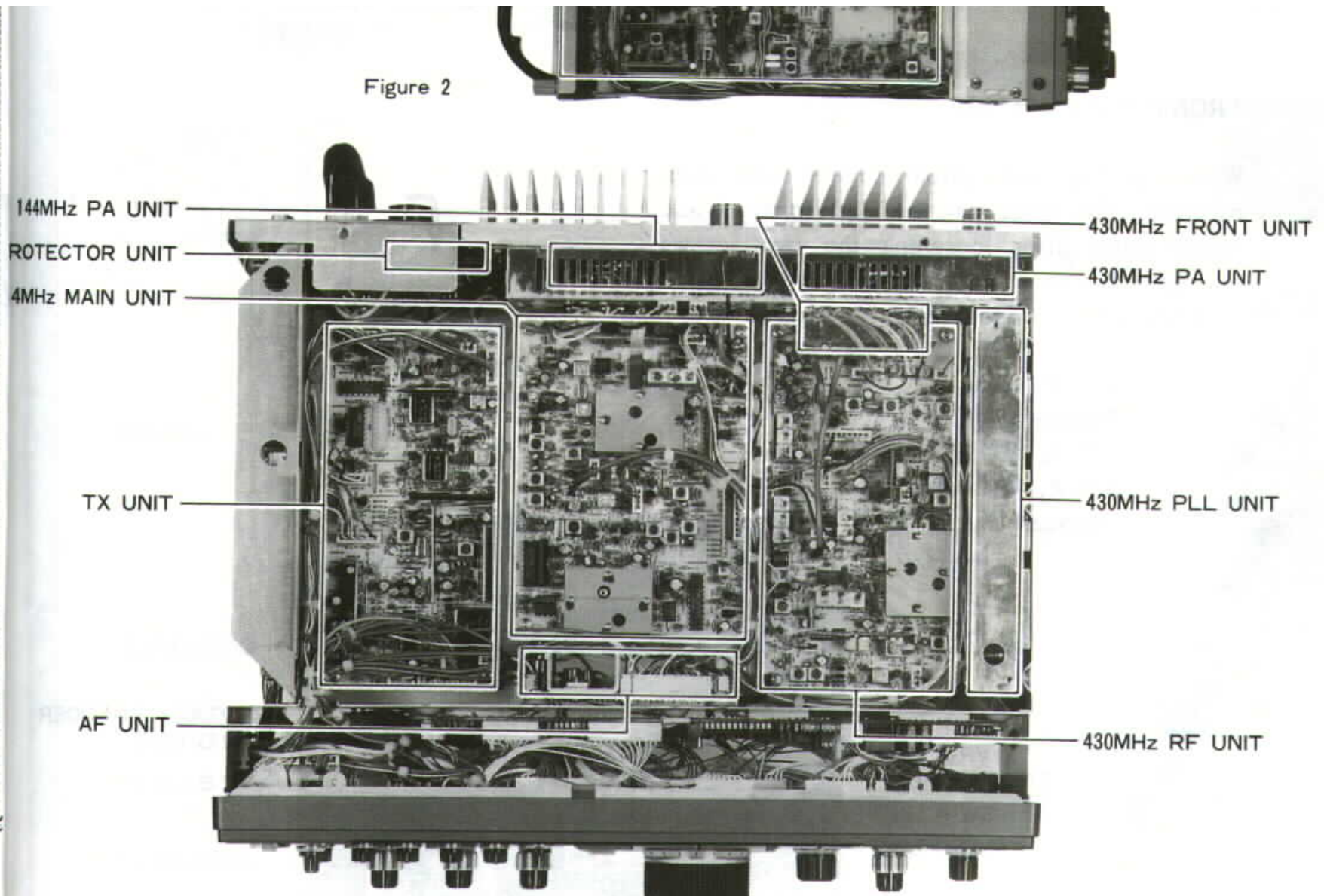
Figure 1



1
3
5
6
8
9
10
12
13
15
16
17
18
20
21
23
24
25
26
27

28
29
30
31
33
39
45
51
52
53
54
55
57
60
64
69
72
76
81

Figure 2



CIRCUIT BOARD ACCESS

BOTTOM COVER

Removing the bottom cover exposes the following units:

Power Supply Unit
Reg Unit
Optional Band Modules
 $\frac{1}{2}$ of RX Unit

To remove the bottom cover, remove the twelve screws (4 marked "※" and 8 marked "◎") in Figure 1).

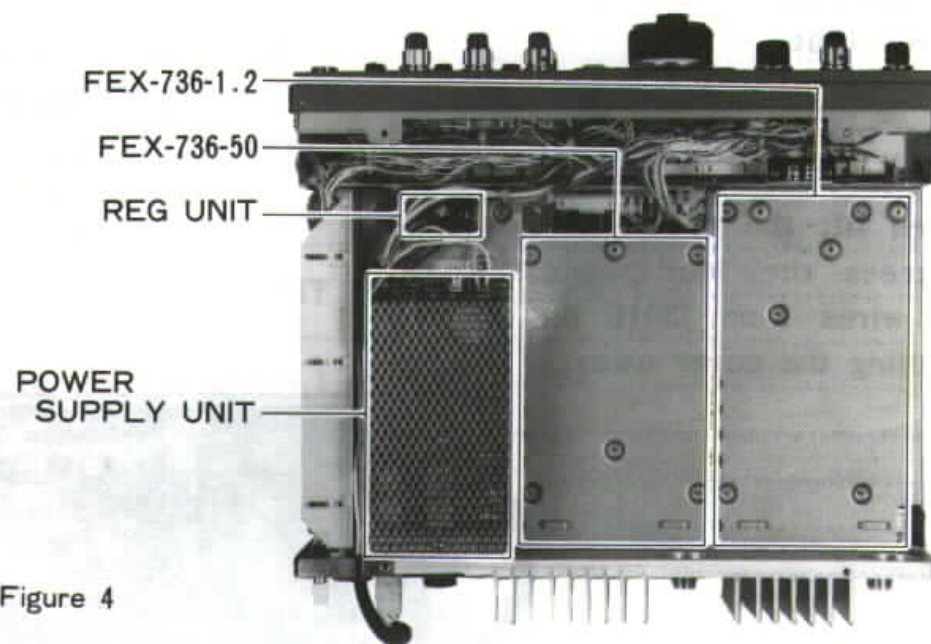
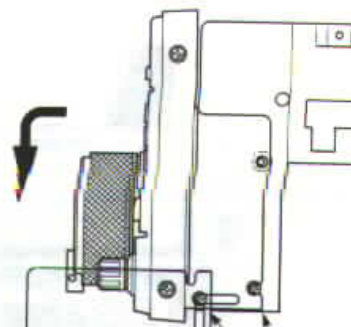


Figure 4

FRONT PANEL HINGE

When the top and bottom covers have been removed, the front can be slid forward and *folded down after loosening the two screws* on either side, shown in Figure 5. This provides access to the following boards:



- Control Unit
- Display Unit
- VR-A, -B, -C and -D Units
- SW-A, -B and -C Unit
- Encoder Unit

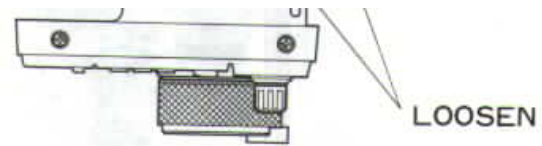
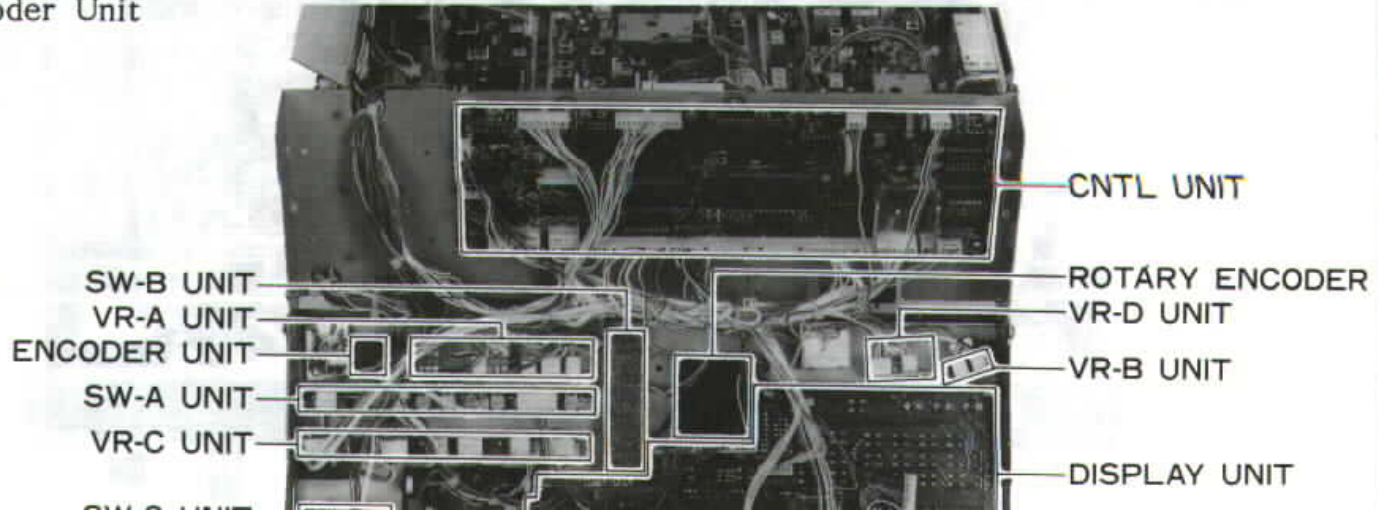
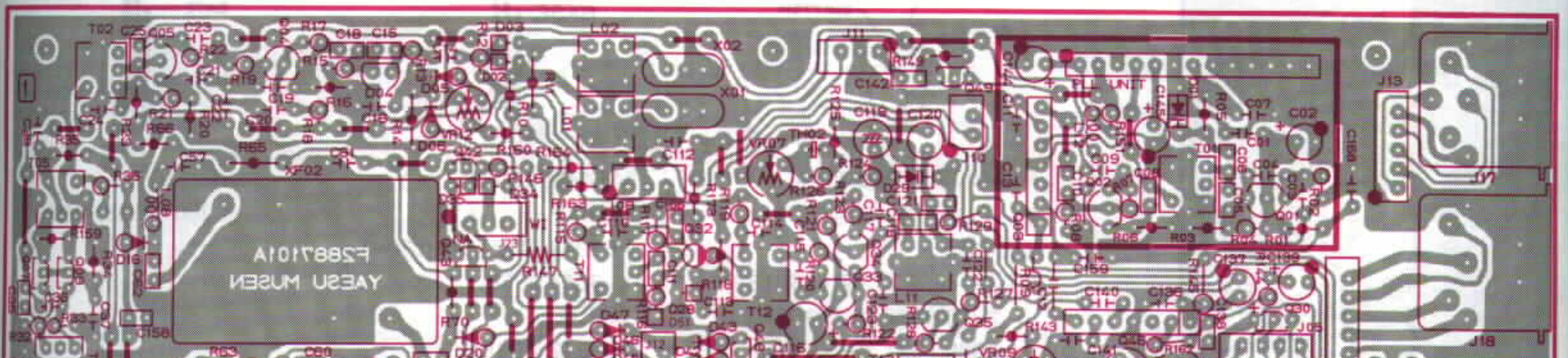
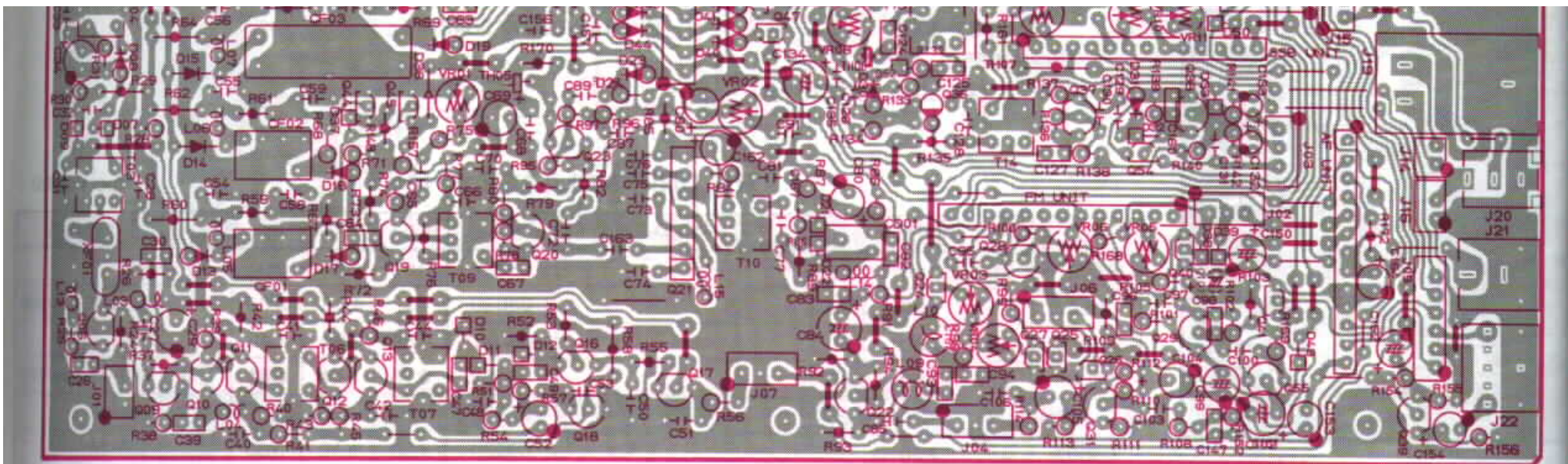


Figure 5

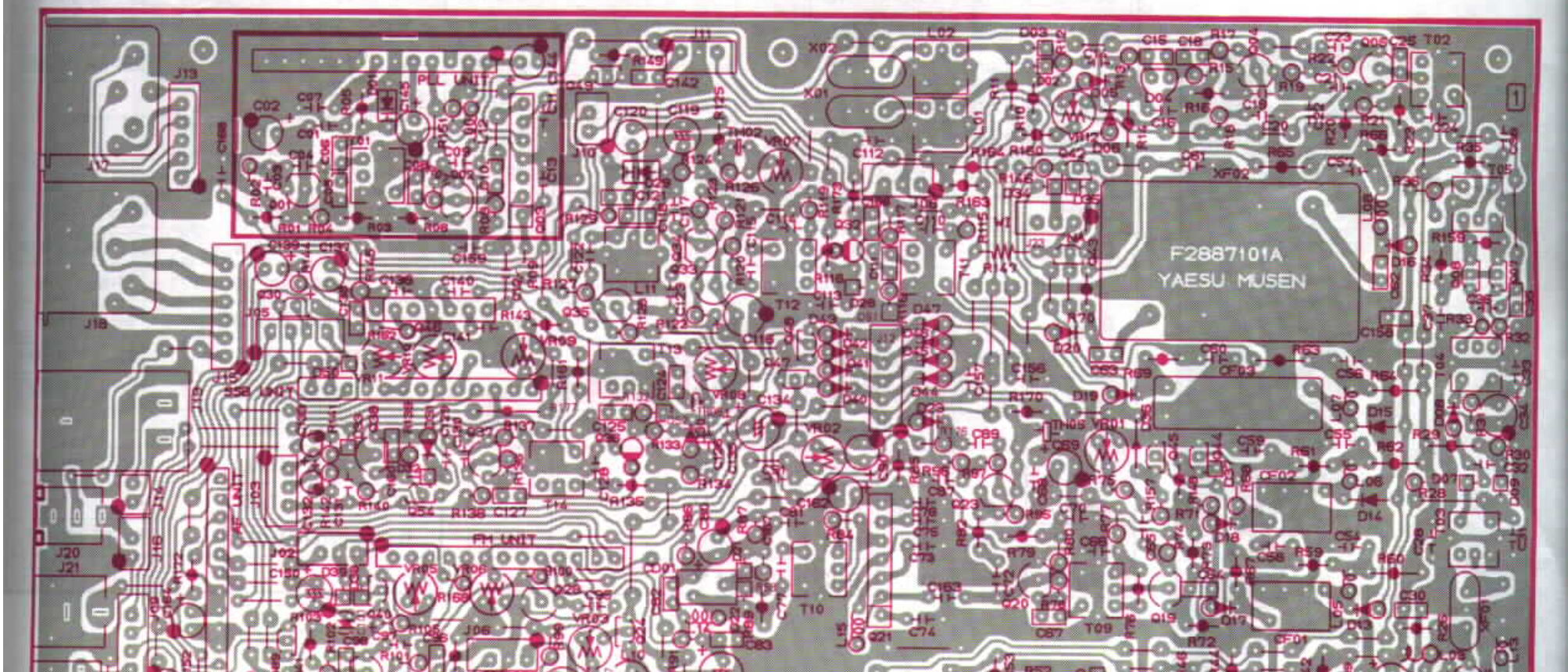


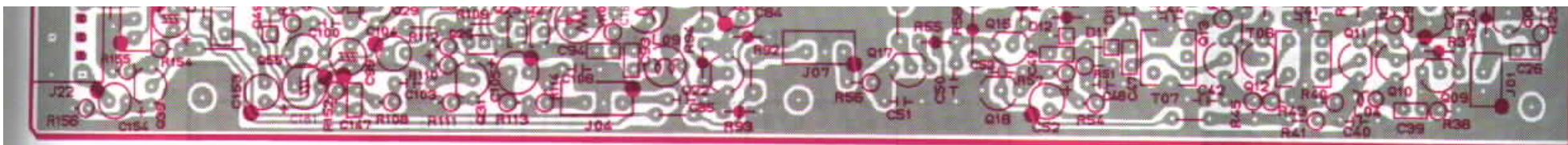
RX UNIT (No. 3XXX)





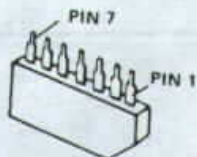
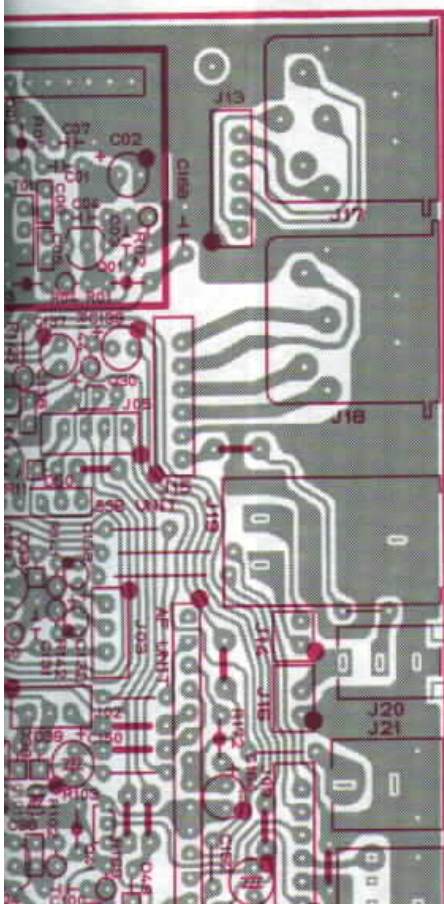
Component side (obverse)



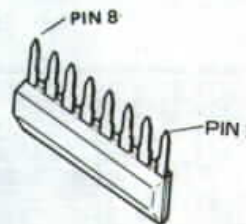


Component side (reverse)

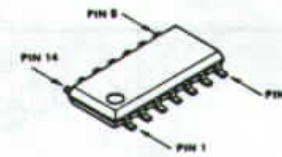
RX UNIT PARTS LAYOUT



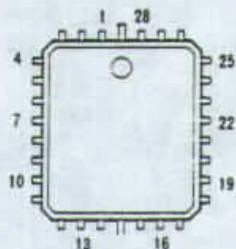
μ PC1037H(Q3003,3046)



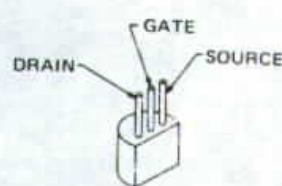
μ PC577H(Q3021)



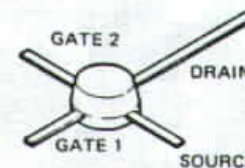
LA6324M(Q9301,9401)



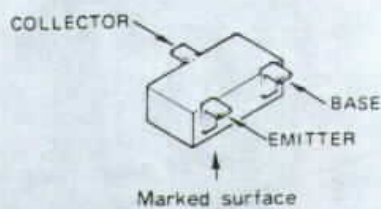
MC145163SL(Q9801)



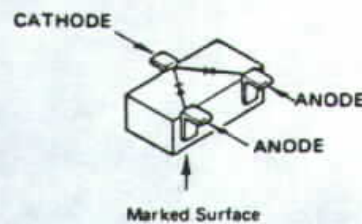
2SK125(Q3006)



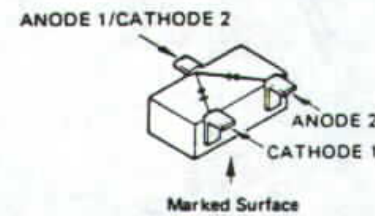
3SK74L(Q3032,3036)



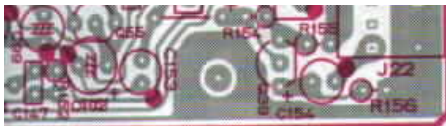
2SC2619F(FB) (Q9802,9803)
2SC2712GR(LG)
(Q9001,9003,9005)



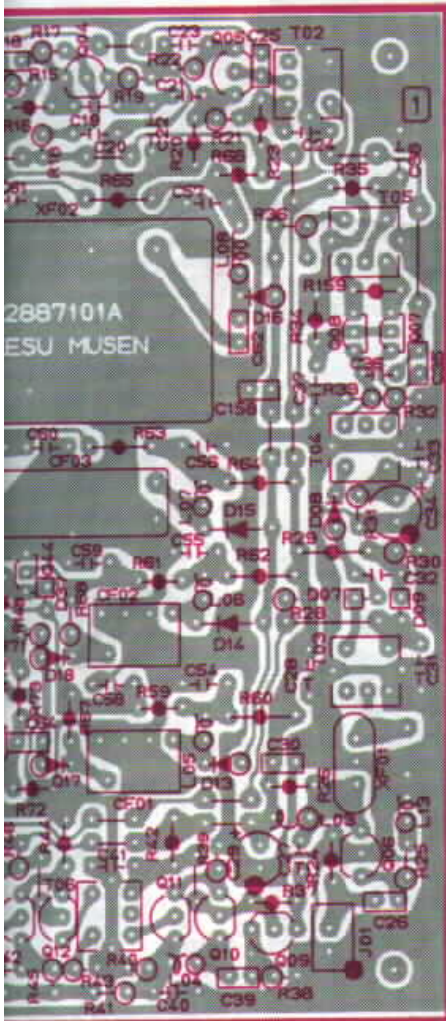
1SS184(B3) (Q9301,9401)



1SS226(C3) (Q9302)

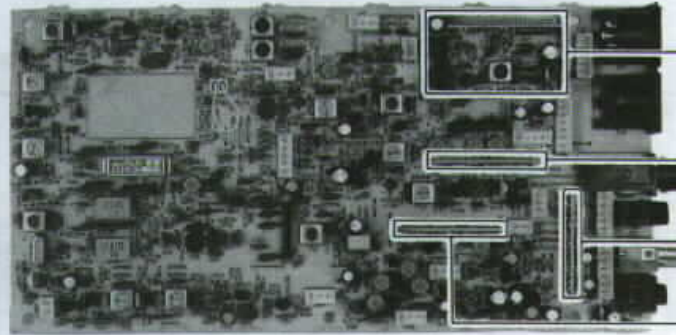


Component side (obverse)



Component side (reverse)

FA1A4M(L33) (Q9402,9403)
FA1F4N(L35) (Q9002,9004)



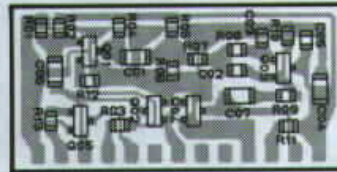
13MHz RX PLL UNIT

SSB SCAN UNIT

AF LPF UNIT

FM SCAN UNIT

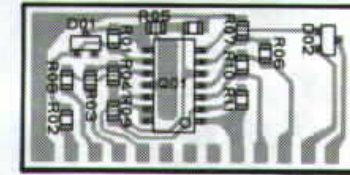
AF LPF UNIT (No.90××)



① ④ ⑦ ⑩ ⑬

Solder side (obverse)

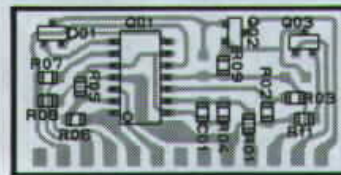
SSB SCAN UNIT (No. 93××)



① ④ ⑦ ⑩ ⑬

Solder side (obverse)

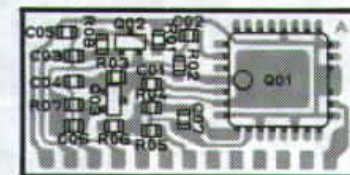
FM SCAN UNIT (No. 94××)



① ④ ⑦ ⑩ ⑬

Solder side (obverse)

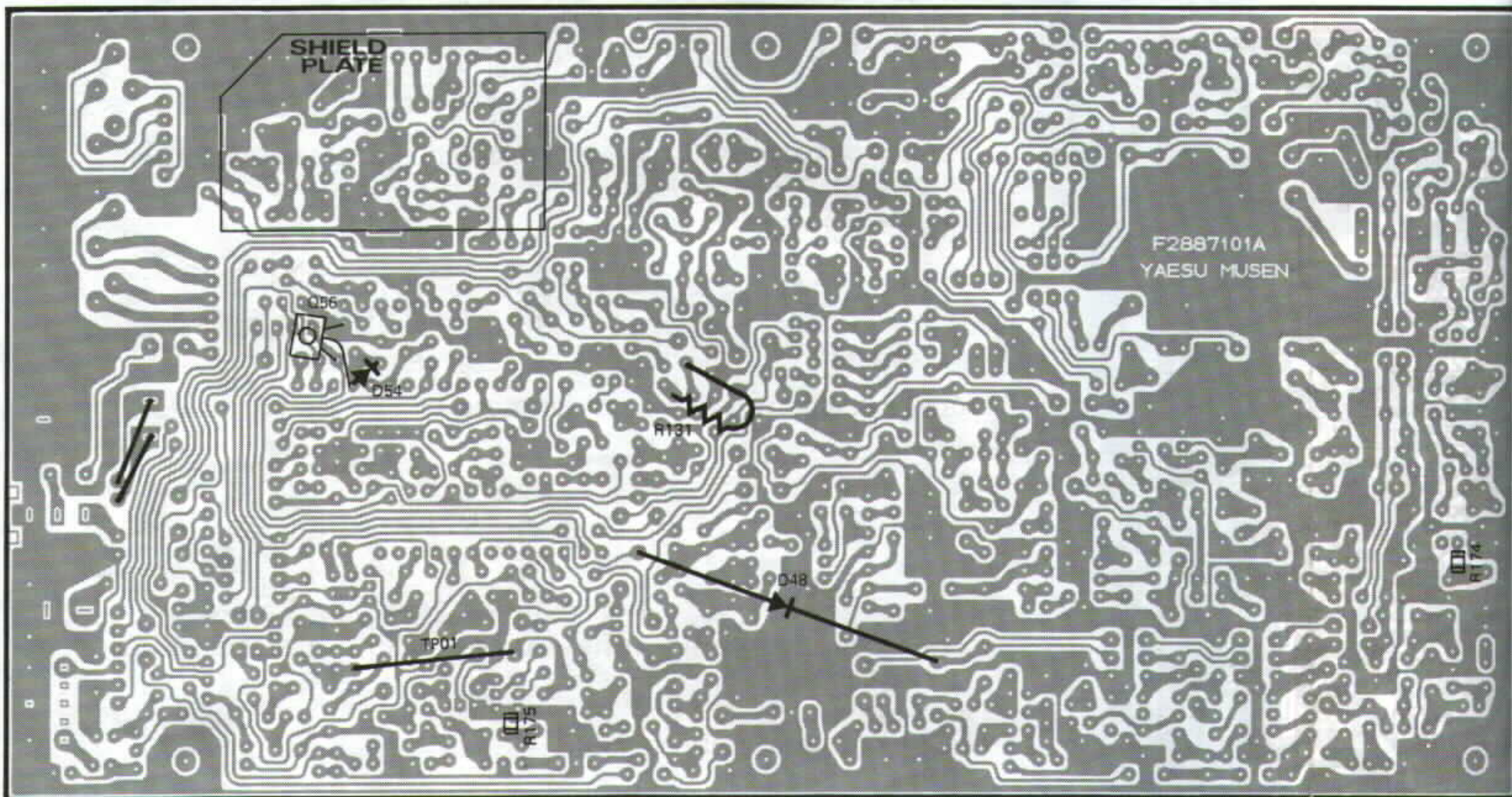
13MHz RX PLL UNIT (No. 98××)



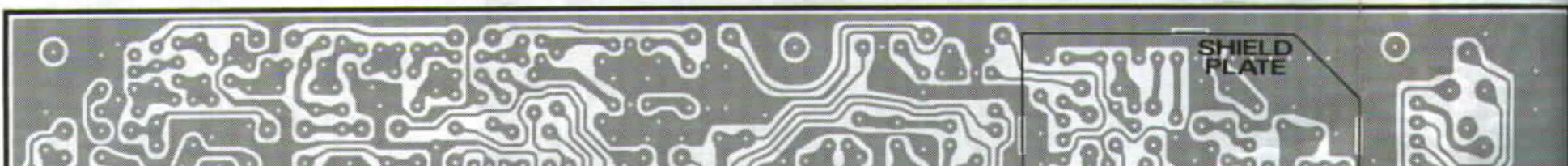
① ④ ⑦ ⑩ ⑬

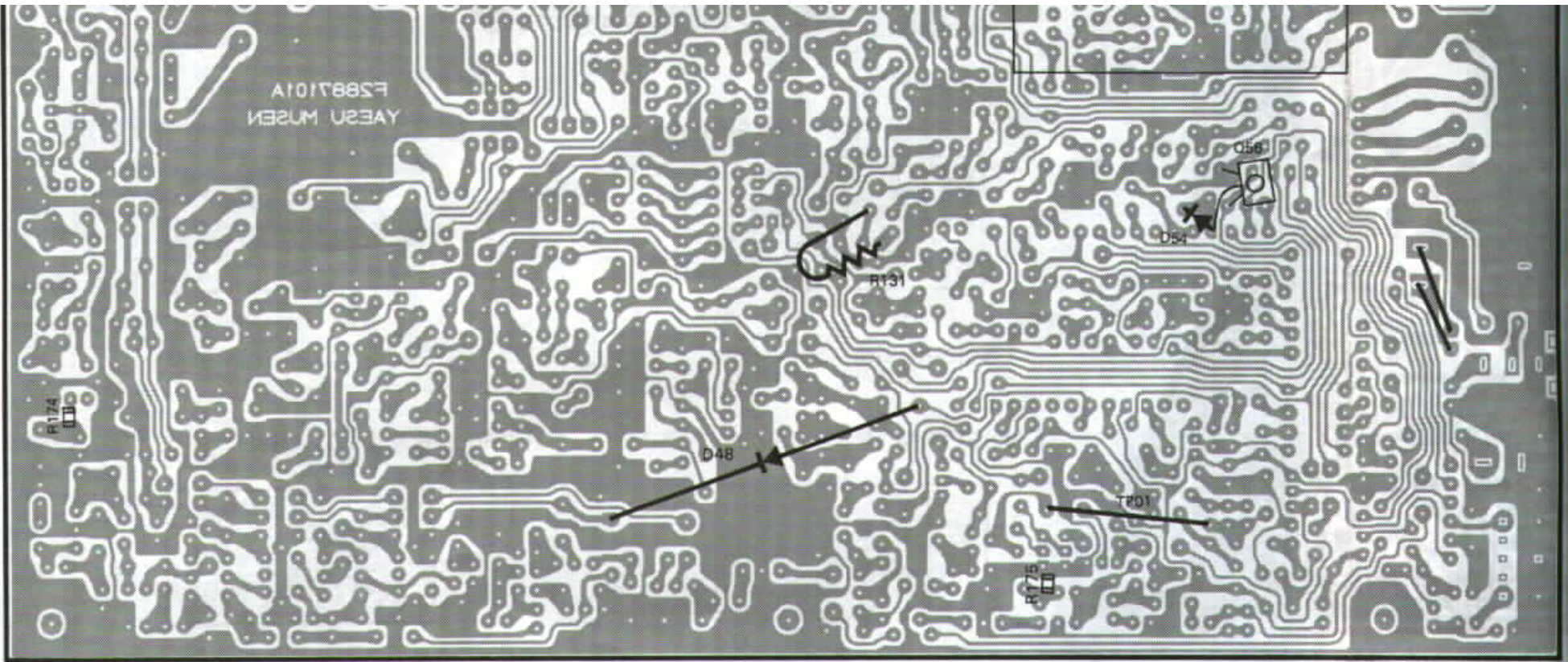
Solder side (obverse)

RX UNIT PARTS LAYOUT

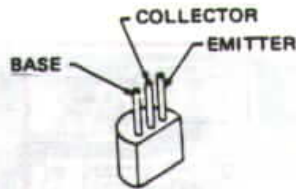
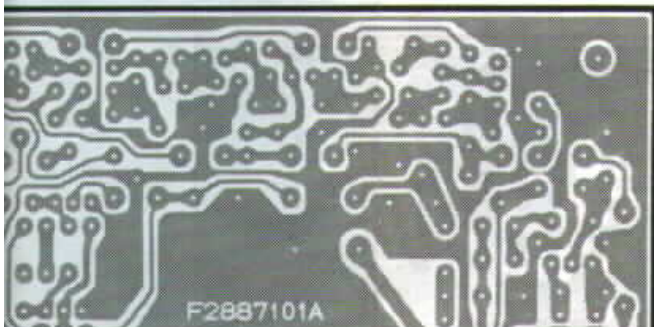


Component side (obverse)

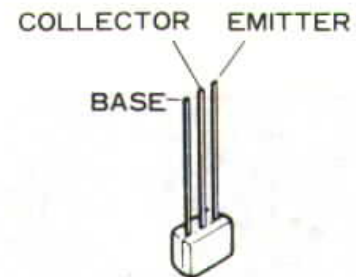




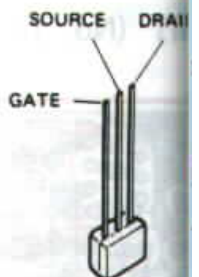
Component side (reverse)



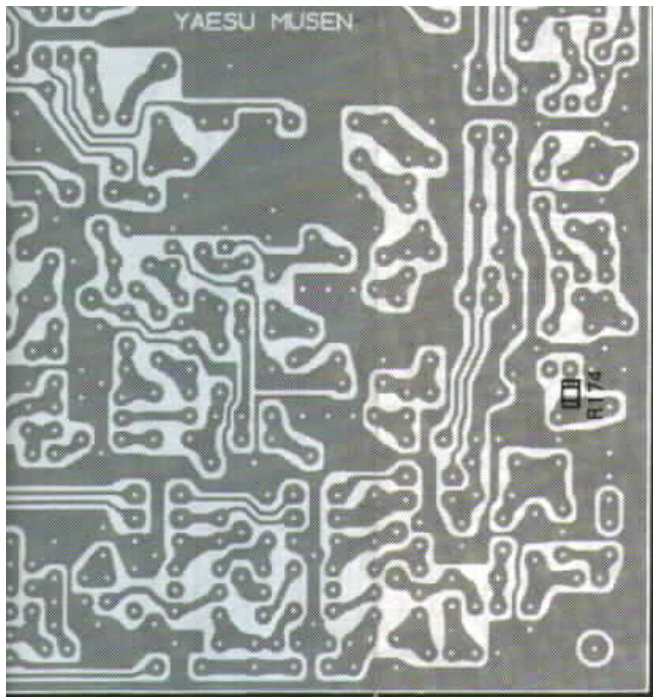
2SA460B(Q3002,3044)
 2SA733AP(Q3055)
 2SA4580



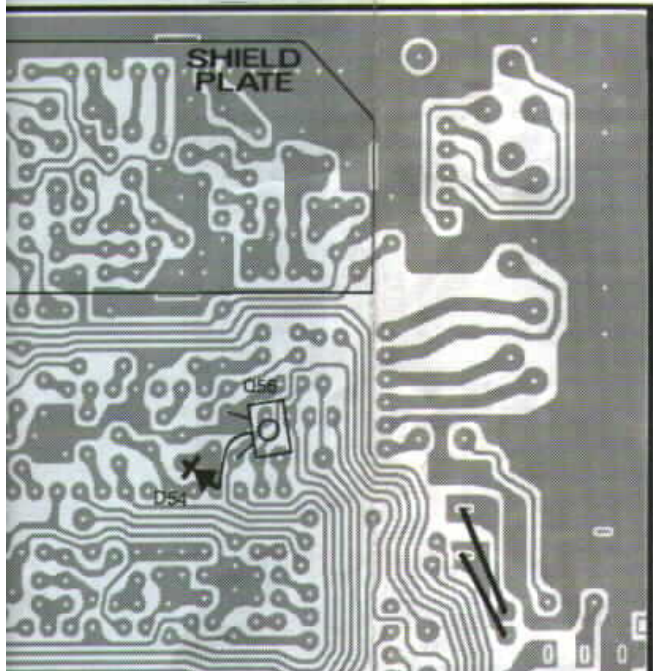
BA1A4M(Q3030)
 BA1A4P



2SK241GR
 (Q3007,3008,3009)



Component side (obverse)



2SC458U

(Q3010-3013,3016-3018)
3020,3022,3023,3028
3029,3031,3033-3035
3037-3039

2SC535B

(Q3001,3005,3009,3019)

(Q3024-3027,3040,3041)
3054,3056

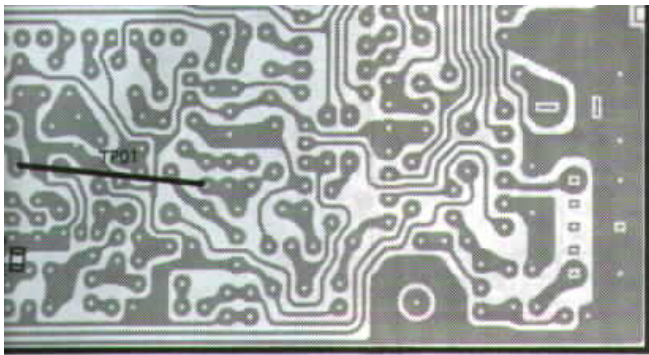
BA1L4L

(Q3042-3045)

BN1A4P(Q3047,3048)

RX UNIT VOLTAGE CHART

	E(S)	C(D)	(G ₁) ^B	(G ₂)	REMARKS		E(S)	C(D)	(G ₁) ^B	(G ₂)	R
Q3001	3.06	7.60	3.70			Q3029	0.03	0.02	0.02		FM
Q3002	3.6	1.30	2.00			Q3030	0	4.0/0	0/6.7		FM S
Q3004	3.0	7.80	3.60			Q3031	0.84	3.60	1.49		FM
Q3005	0.67	7.60	1.40			Q3032	0.75	6.65	0.85	2.45	SSB-
Q3006	0	7.70	1.20			Q3033	4.50	7.60	5.10		SSB-
Q3007	0.85	7.60				Q3034	4.50	6.10	5.00		SSB-
Q3008	0.85	7.60				Q3035	4.00	7.60	4.65		SSB-
Q3009	3.42	7.50	3.48			Q3036	0.75	6.70	0.84	2.42	SSB-
Q3010	1.95	7.50	2.60			Q3037	4.70	7.65	5.30		SSB-
Q3011	1.95	7.50	2.60			Q3038	0	2.43	0.05		SSB-
Q3012	1.95	7.60	2.60			Q3039	3.0	7.7	3.7		
Q3013	1.95	7.60	2.60			Q3040	0	0	7.5		
Q3016	0	7.8/0			NB ON/OFF	Q3041	0	0.01	4.77		
Q3017	0	4.45				Q3042	0	780/0.06	0.06/5.10		CW-F
Q3018	0	5.30	0.28			Q3043	0	780/0.06	0.06/5.10		SSB-
Q3019	1.16	7.70	1.83		FM	Q3044	0	780/0.06	0.60/5.20		FM-F
Q3020	0	3.75	0.68		FM	Q3045	0	780/0.06	0.06/2.70		FM-F
Q3022	1.40	7.70	2.02		FM	Q3047	7.86	7.71/0.01	0.06/7.82		FM FM-F
Q3023	0.30	2.80	1.00		FM	Q3048	7.86	0.08/7.52	7.83/0.60		FM FM-F
Q3024	0	0	2.20/0		FM / FM	Q3049	0	3.14	0		
Q3025	0	0.01	4.76		FM	Q3054	0	0.01/0.04	4.84/0.01		MUT
Q3026	0	0.02	4.76		FM	Q3055	7.50	0.07	7.45		FM
Q3027	0	0.02	0.01		FM	Q3056	0	0.10/1.63	4.84/0.01		MUT



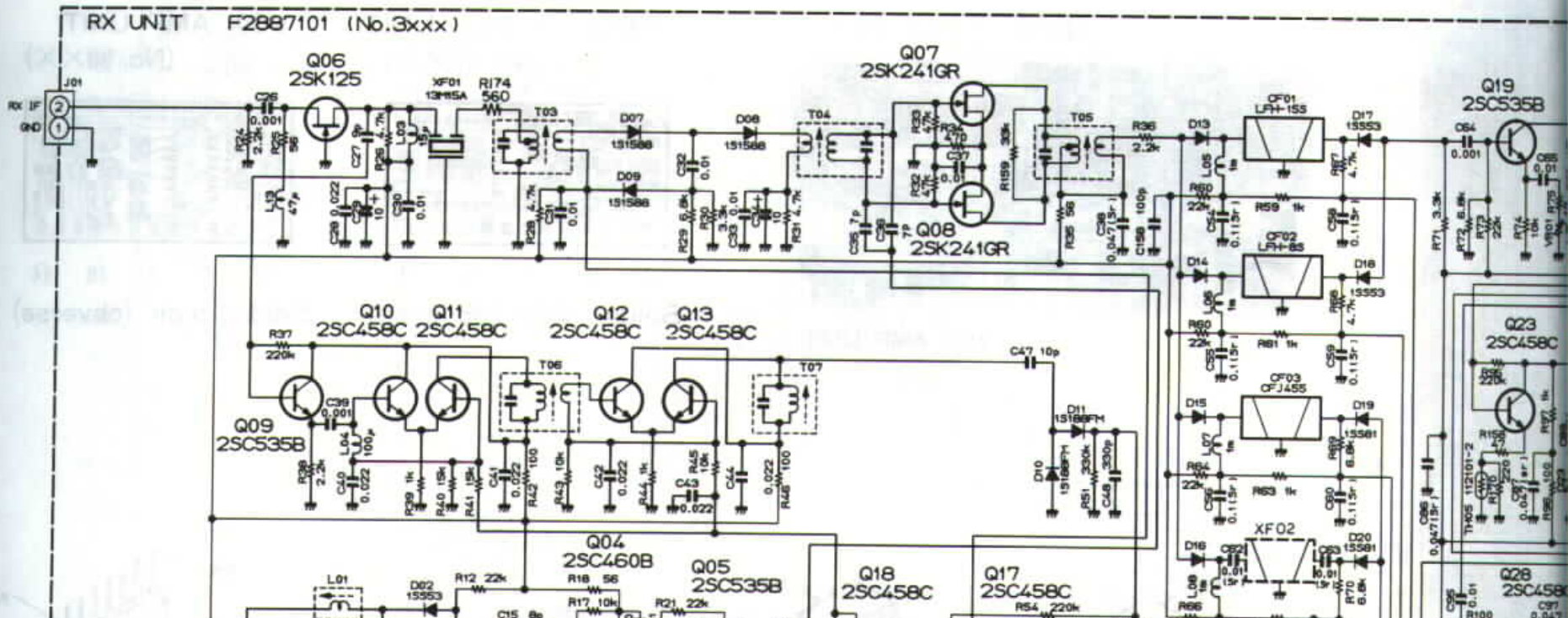
Component side (reverse)

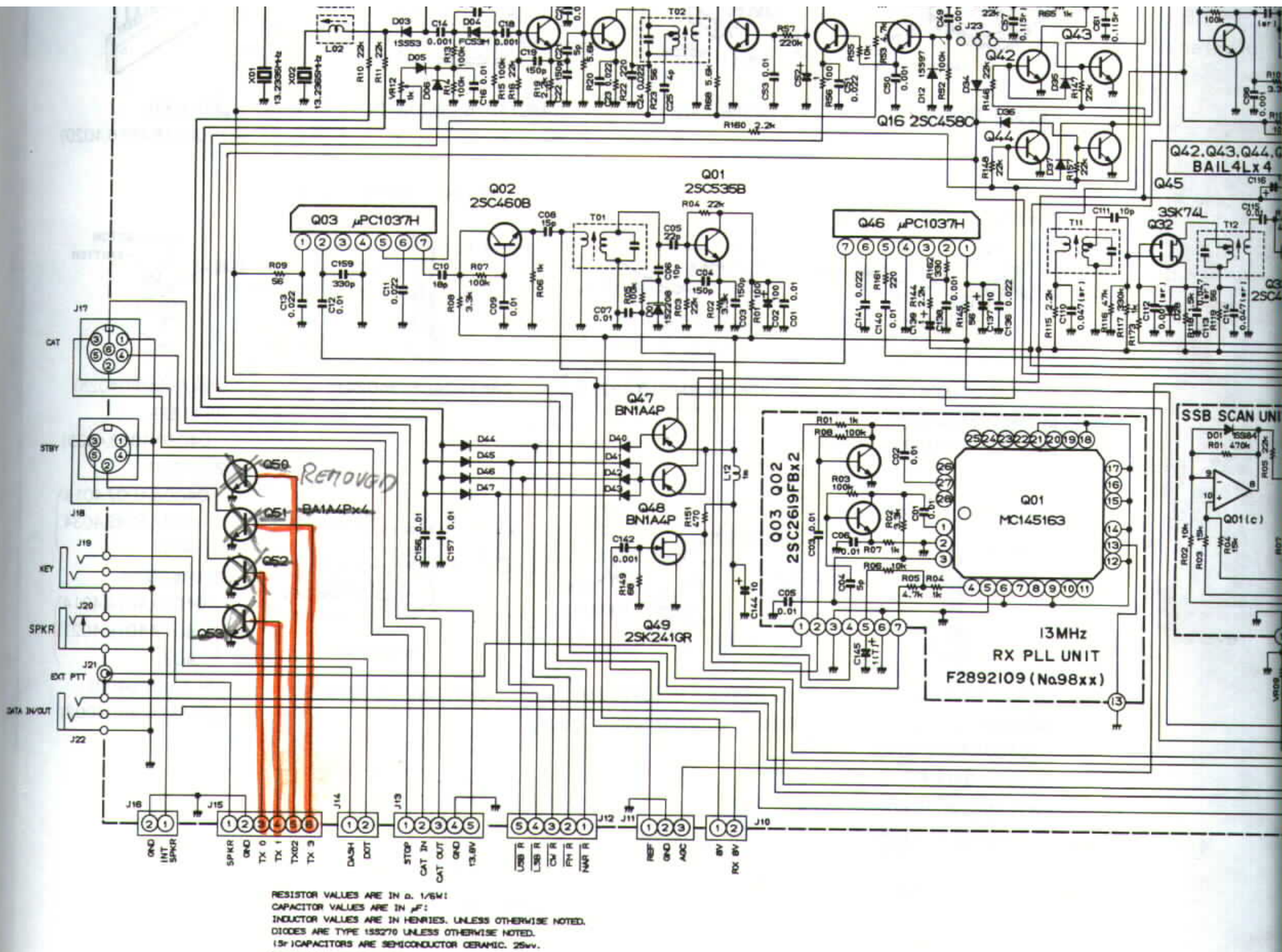
Q3028	0	0.02	0.02	FM					
-------	---	------	------	----	--	--	--	--	--

RX UNIT IC VOLTAGE CHART

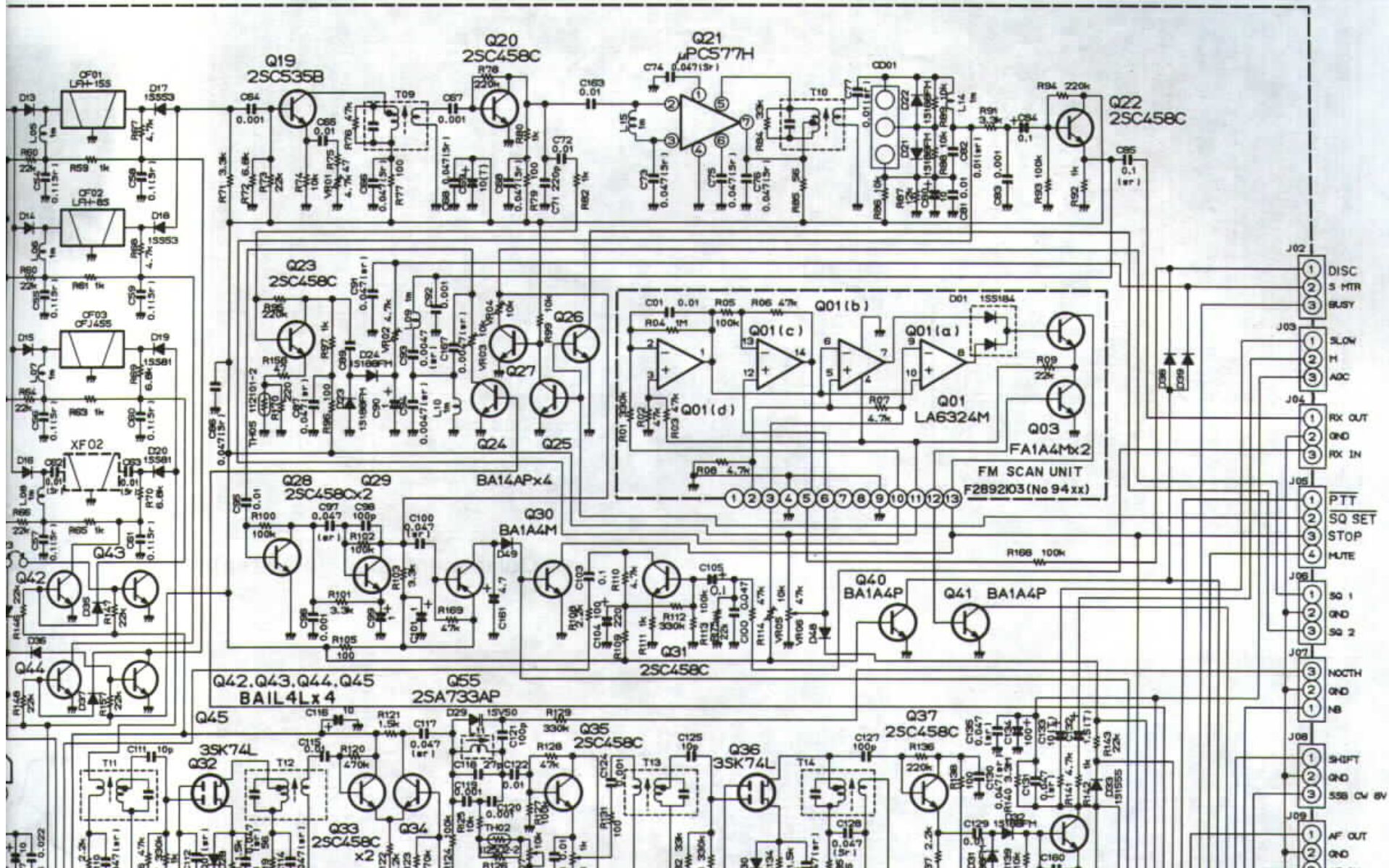
(DC VOLTS)

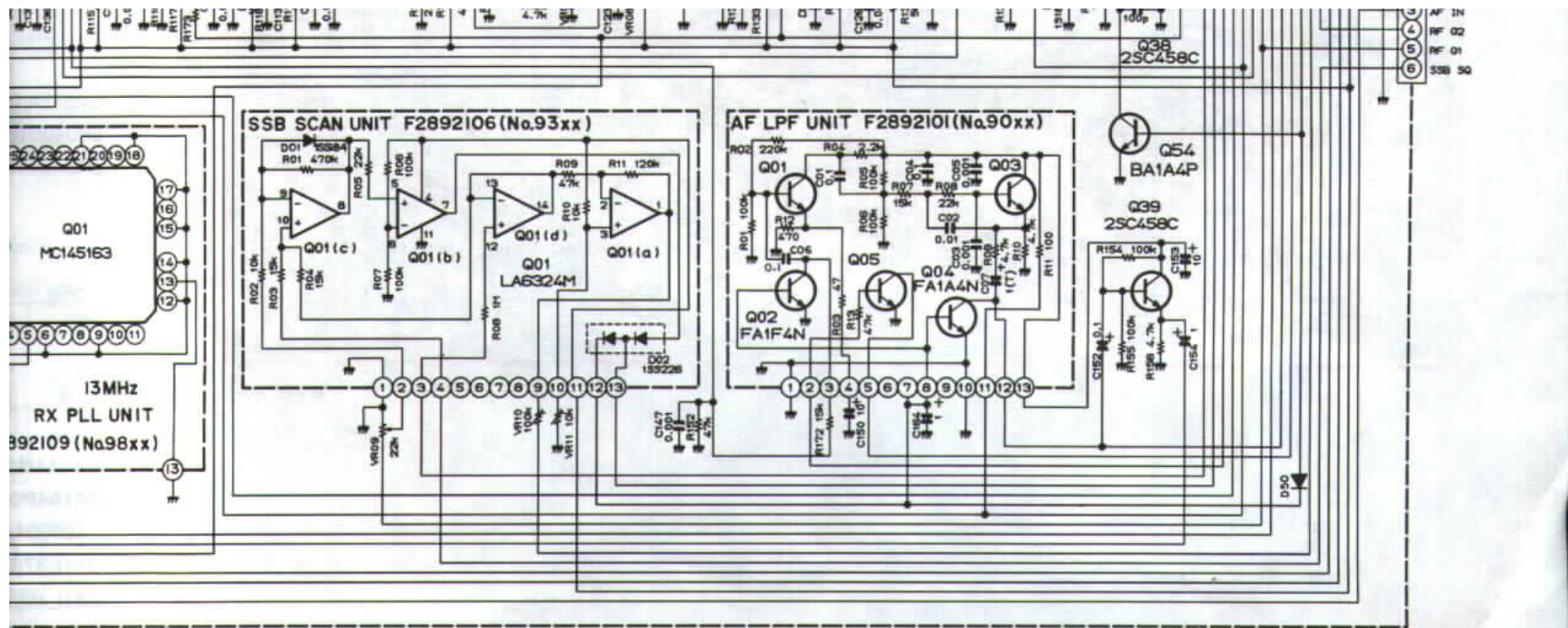
	1	2	3	4	5	6	7	REMARKS
Q3003	7.00	6.15	—	0	3.11	3.11	3.11	
Q3021	5.10	1.90	1.90	0	7.60	2.80	7.00	FM
Q3046	6.94	6.09	—	0	3.07	3.07	3.07	





RX UNIT CIRCUIT DIAGRAM

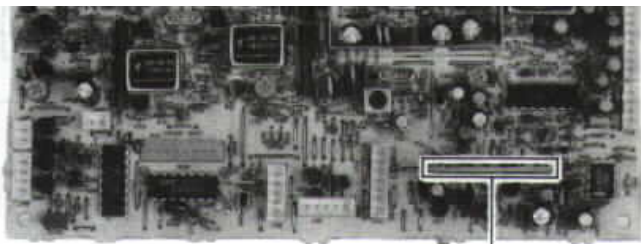




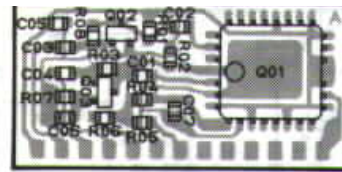
13MHz TX PLL UNIT

13MHz TX PLL UNIT
(No. 97xx)

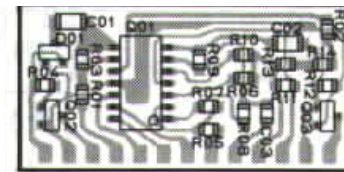
VOX AMP UNIT
(No. 99xx)



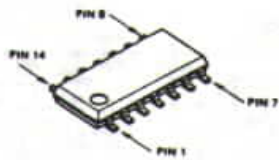
VOX AMP UNIT



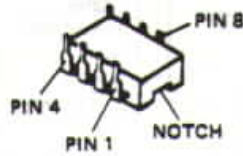
① ④ ⑦ ⑩ ⑭
Solder side (obverse)



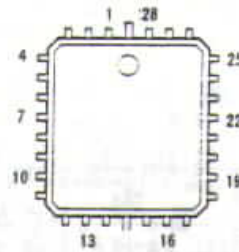
① ④ ⑦ ⑩ ⑭
Solder side (obverse)



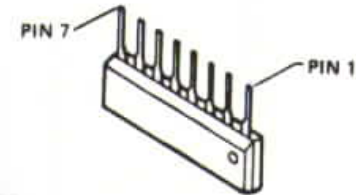
LA6324M(Q9901)



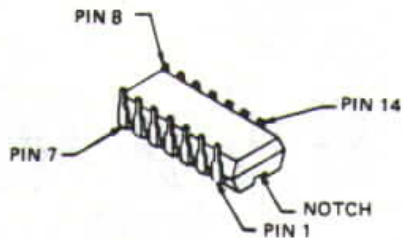
LA6358(Q4011)



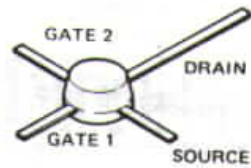
MC145163SL(Q9701)



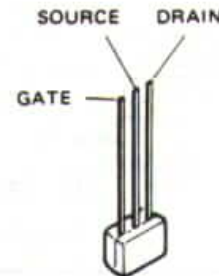
μPC1037H
(Q4015, Q4016, Q4020)



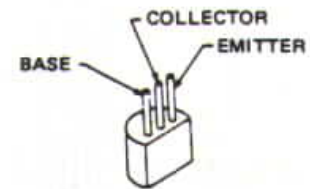
LA6324(Q4003)
μPD4001BC(Q4026)
μPD4011BC(Q4027)



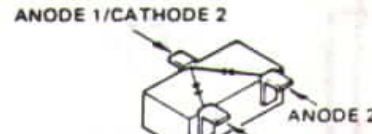
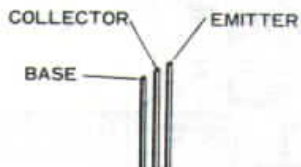
3SK74L(Q4010, Q4022)



2SK192AGR(Q4024)



2SA733AQ(Q4025)
2SA1528
(Q4030, Q4033, Q4035)



2SC458C
(Q4006, Q4007, Q4018)
(4023, 4032, 4034)
4037
2SC460B
(Q4009, Q4014, Q4014)



EMITTER
Marked Surface

CATHODE 1
Marked Surface

(4009,4014,4017
4017,4019,4021
4036)

BA1A4M(Q4028)

2SC2619F(FB) (Q9702,9703)

1SS226(C3) (Q9901)

2SC535B(Q4001)

BA1A4P

2SC2712GR(LG) (Q9902,9903)

2SC1815GR(Q4002)

(Q4004,4008,4040)

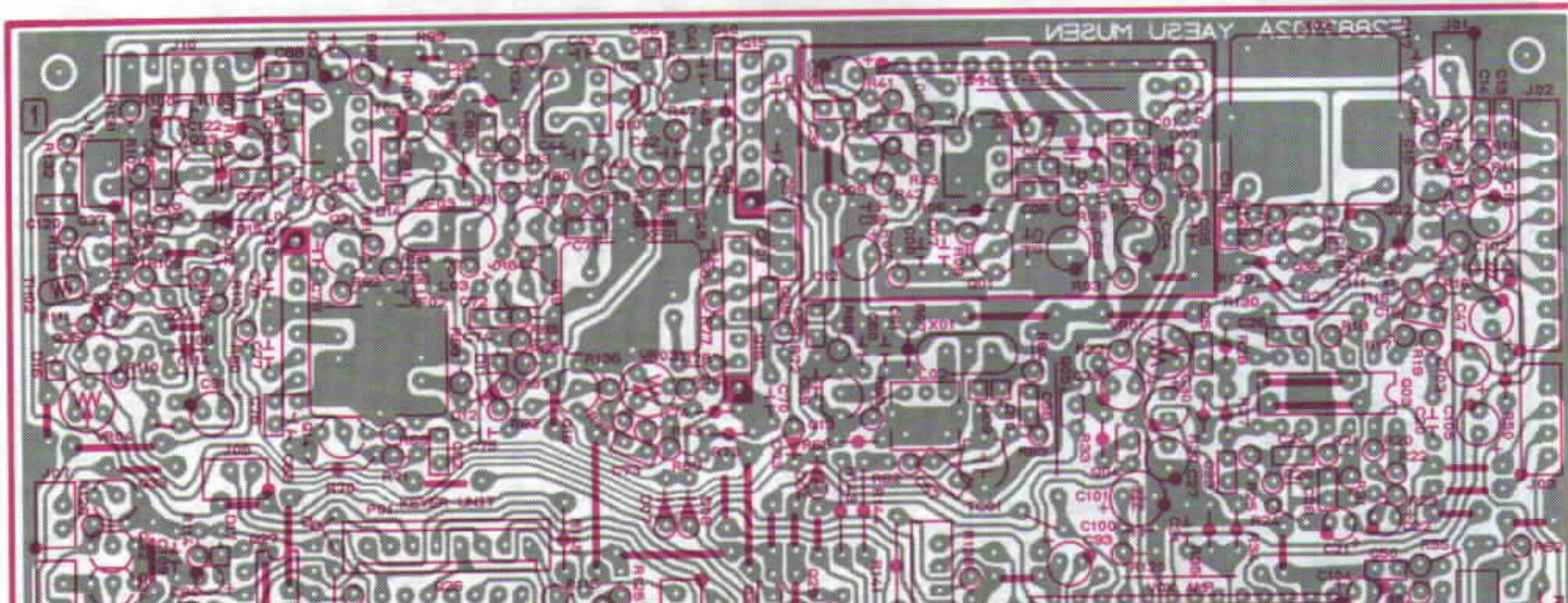
BA1L3Z(Q4005)

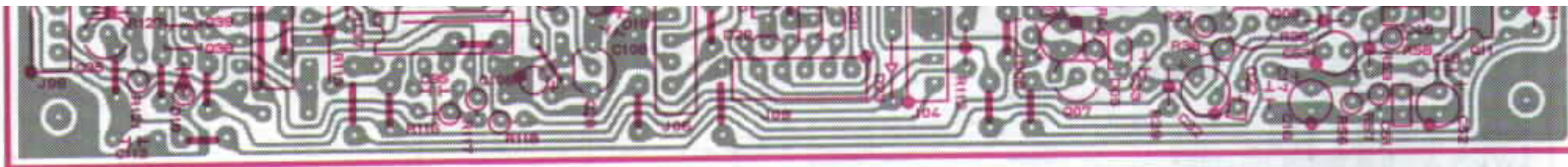
BA1L4M(Q4038,4039)

BN1A4P(Q4029,4031)

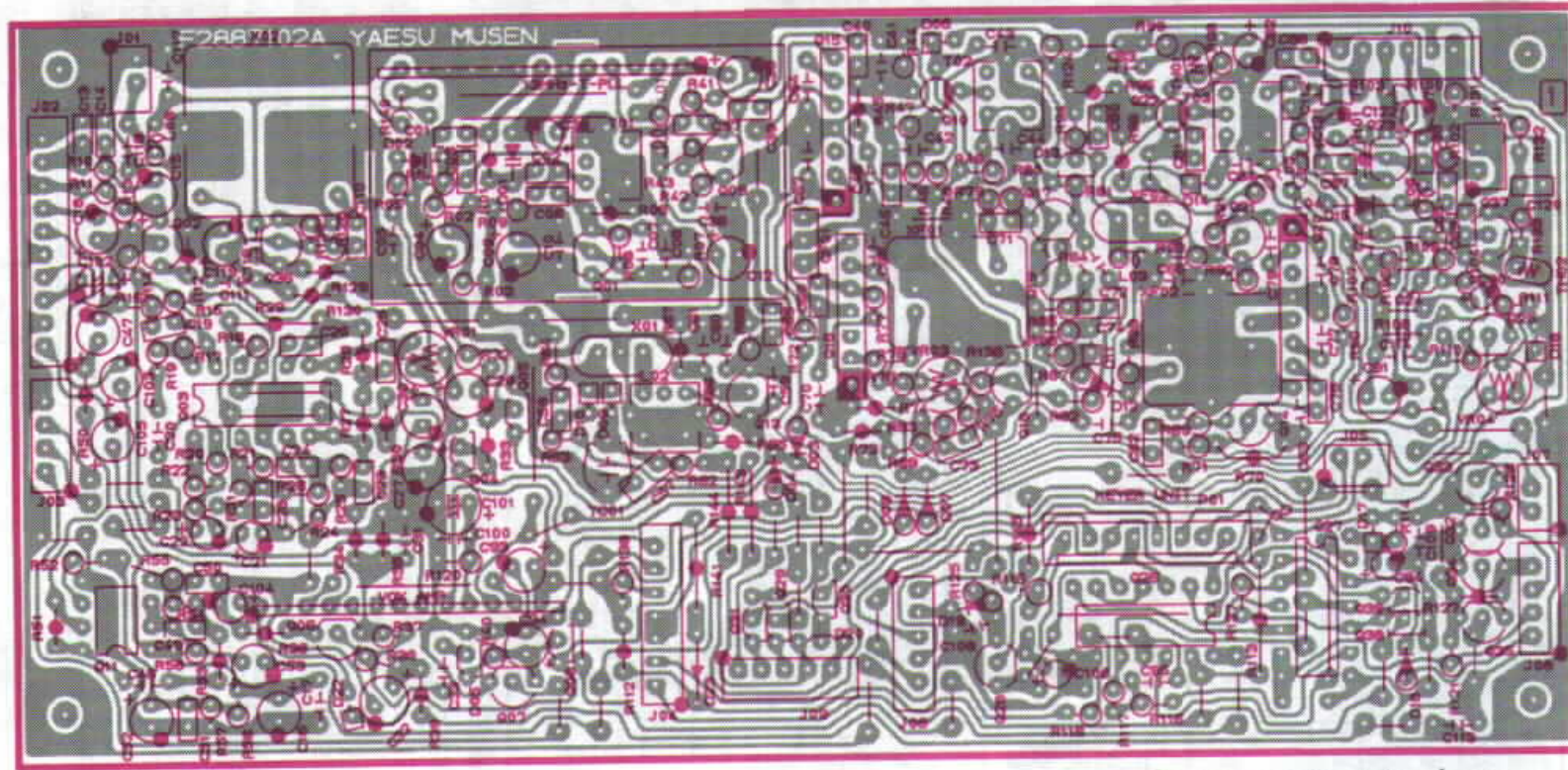
TX UNIT PARTS LAYOUT

TX UNIT (No. 4XXX)





Component side (obverse)



Component side (reverses)



LA6324M

PIN 8

PIN 7

LA6324

μPD4001

μPD4011

COLLECTOR

BASE

BA1A4M

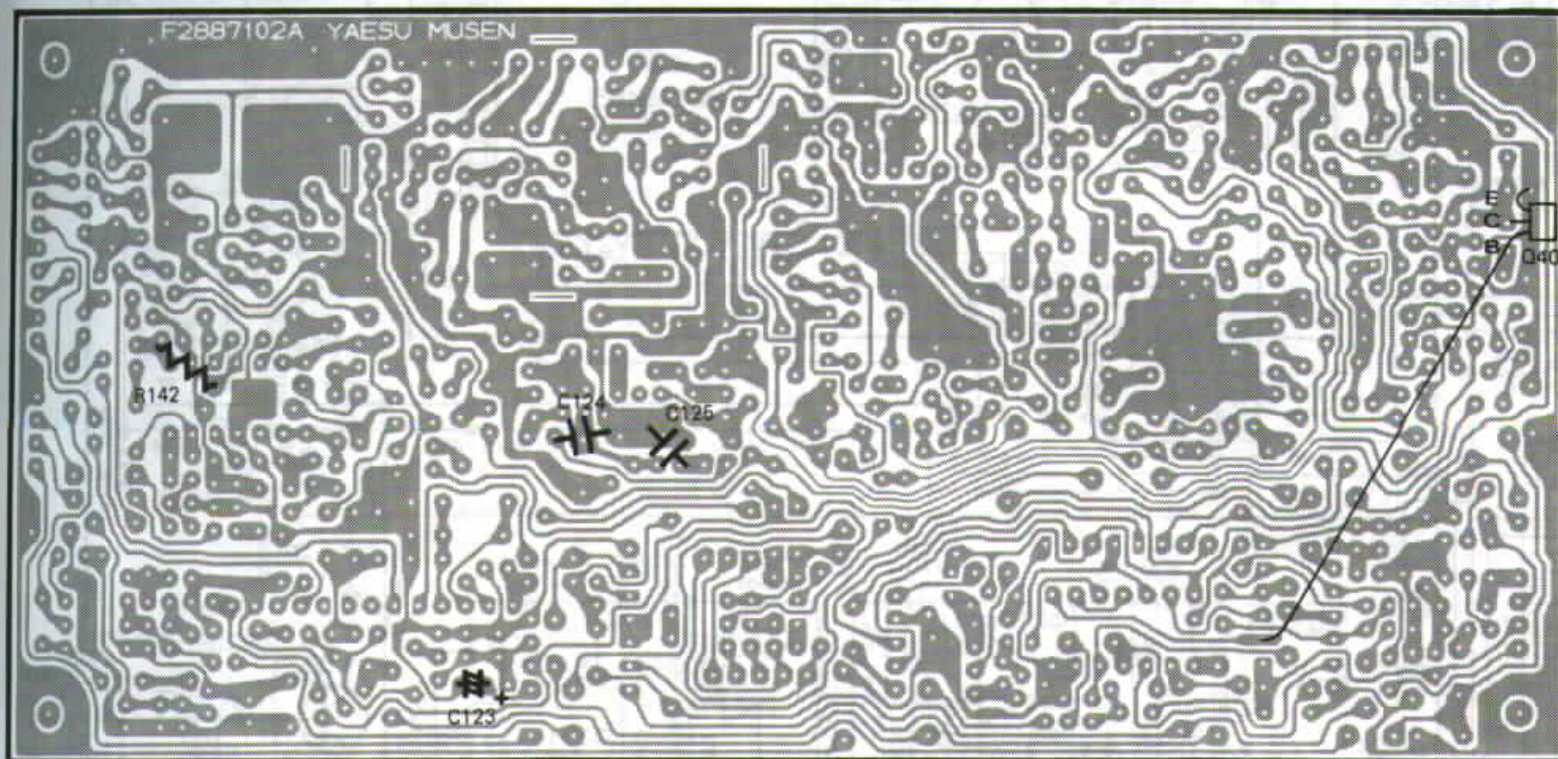
BA1A4P

(Q400)

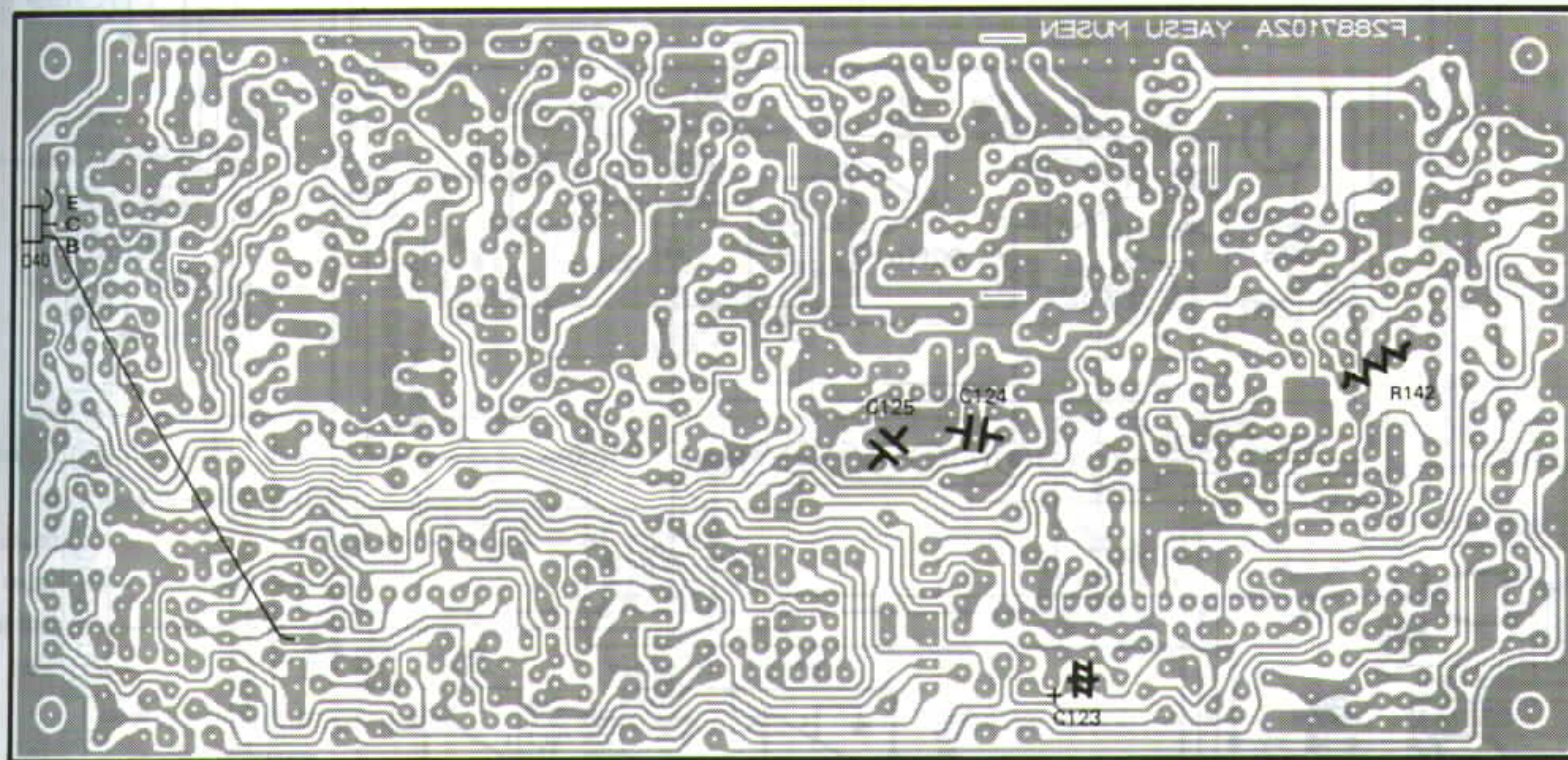
BA1L3Z

BA1L4M

BN1A4P



Solder side (obverse)



Solder side (reverse)

TX UNIT PARTS LAYOUT



erse)

TX UNIT VOLTAGE CHART

(DC VOLTS)

	E(S)	C(D)	B		REMARKS		E(S)	C(D)	B		REMARKS
			(G ₁)	(G ₂)				(G ₁)	(G ₂)		
Q4001	2.8	7.5	3.4			Q4023	0	7.6	0		
Q4002	3.42	7.41	4.11			Q4024	2.69	7.88	0.99		} CW ALC/DISC @ 10W output
Q4004	0	0	4.96/0.04		SSB·CW / FM-N FM CW-N	Q4025	3.30	1.74	2.70		
Q4005	0	0	7.2/0		SSB CW / FM	Q4028	0.62/0.79	3.30/0	0.01/1.75		CW KEY UP/DOWN
Q4006	0.14/0.16	4.35/3.90	0.80/0.55		with MIC input / without MIC input	Q4029	7.90	7.85/0	0/7.85		SSB / SSB
Q4007	0	12.10/0.20	0.42/0.78		with MIC input / without MIC input	Q4030	7.90	7.85/0	0.70/7.90		CW CW-N / CW,CW-N
Q4008	0	0.43/0.78	0		with MIC input / without MIC input	Q4031	7.90	7.80/0.01	0/7.80		FM,FM-N / FM,FM-N
Q4009	1.3	3.5	2.0			Q4032	0	7.87/0.02	0.01/0.074		TX / RX
Q4010	0	7.0	1.5	2.0		Q4033	7.90	0.03/0.02	7.90/7.80		TX / RX
Q4013	2.85	7.72	3.47		SSB	Q4034	0	7.90/0	0/0.75		TX / RX
Q4014	1.30	3.57	1.96		SSB	Q4035	7.90	0.02/0	7.90/0		TX / RX
Q4017	0.8	3.5	1.4		SSB	Q4036	3.4	7.4	4.1		
Q4018	0	0/0.06	0/0.69		SSB, PROC OFF/ON	Q4037	0	1.08	0.48		@ 10W output
Q4019	2.82	7.30	3.52		SSB	Q4038	0	7.70/0	0.04/7.10		CW KEY UP/DOWN
Q4021	1.40	5.27	2.06		SSB	Q4039	0	0.04/7.10	4.15/0		CW KEY UP/DOWN
Q4022	0	7.13	1.43	2.68	DRIVE control CCW	Q4040	0	0	0/7.70		TX / RX

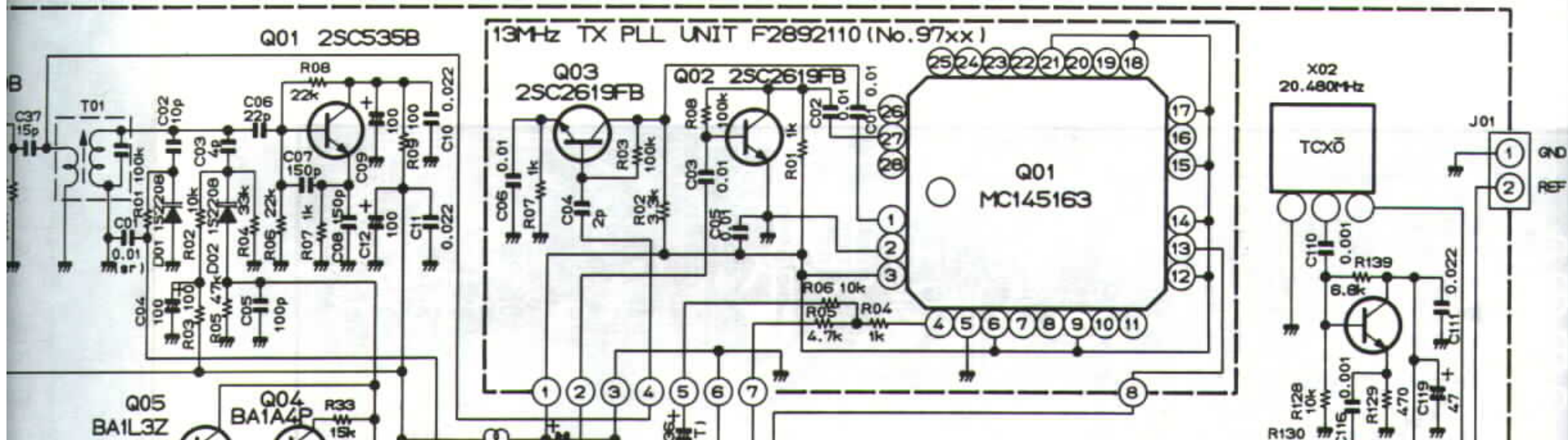
TX UNIT IC VOLTAGE CHART

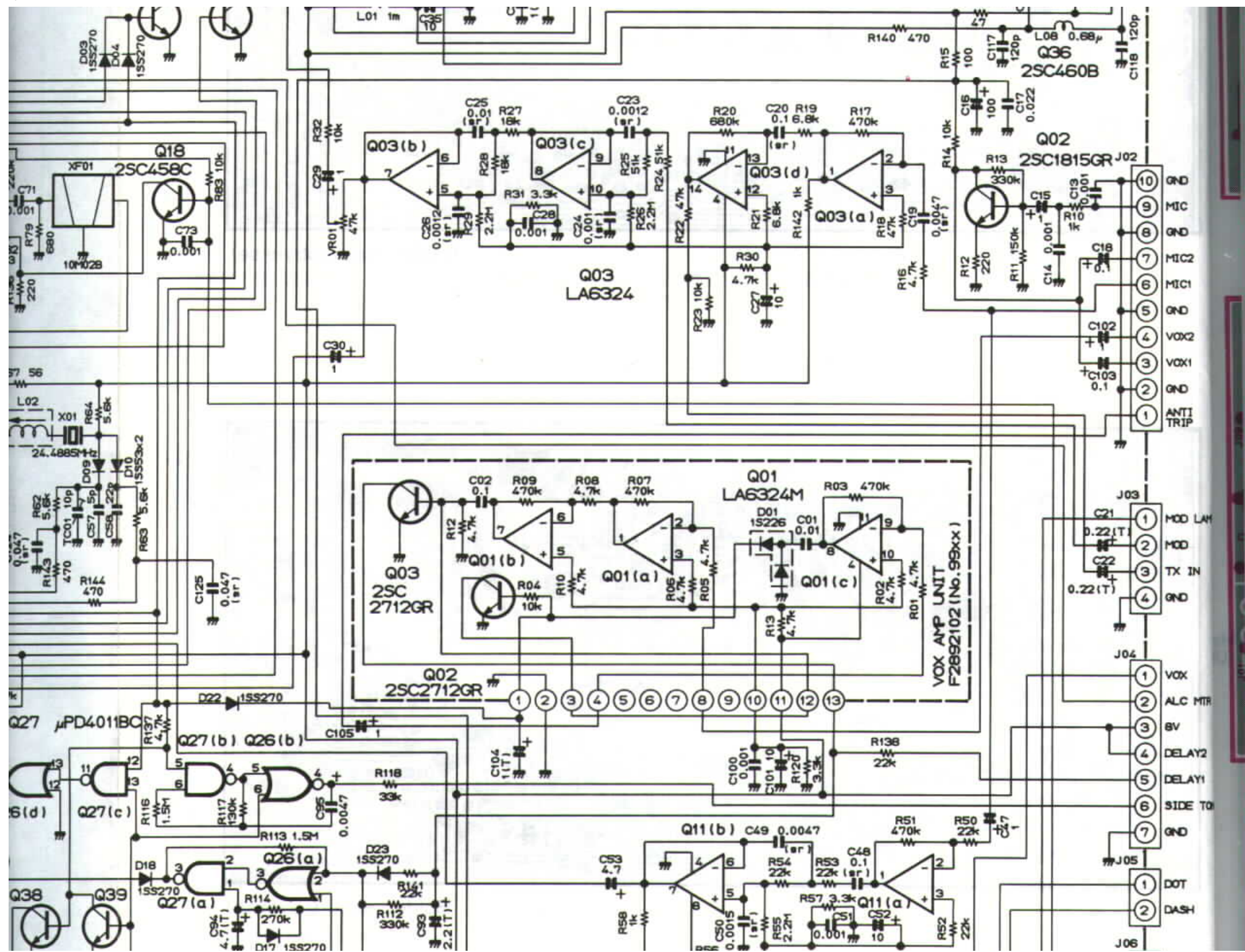
(DC VOLTS)

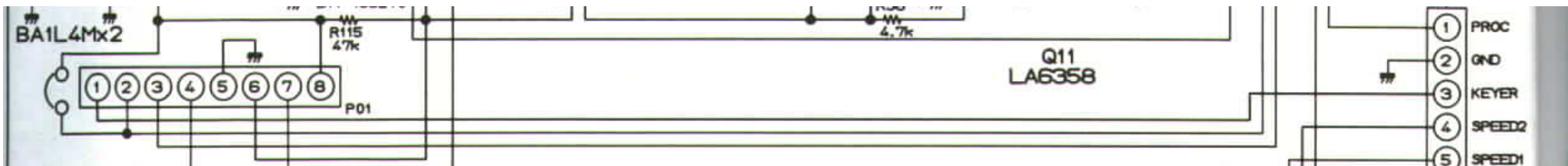
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	REMARKS
Q4003	2.77	2.78	2.76	6.76	2.80	2.81	2.81	2.81	2.81	2.35	0	2.77	2.77	2.76	
Q4011	2.80	2.80	2.80	0	2.35	2.82	2.82	6.75							SSB
Q4015	7.00	6.10	—	0	3.05	3.05	3.05								SSB
Q4016	7.0	6.1	—	0	3.1	3.1	3.1								SSB
Q4020	6.90	6.10	—	0	3.05	3.05	3.05								SSB

Q4026	L/L	H/L	L/L	L/H	H/H	L/L	0	L/L	H/L	L/H	H/L	L/L	L/H	7.90	CW KEY UP/DOWN H \div 8.0 L \div 0
Q4027	L/H	H/L	L/H	L/3.81	H/H	L/3.67	0	L/H	H/H	L/L	H/H	L/H	L/L	7.90	

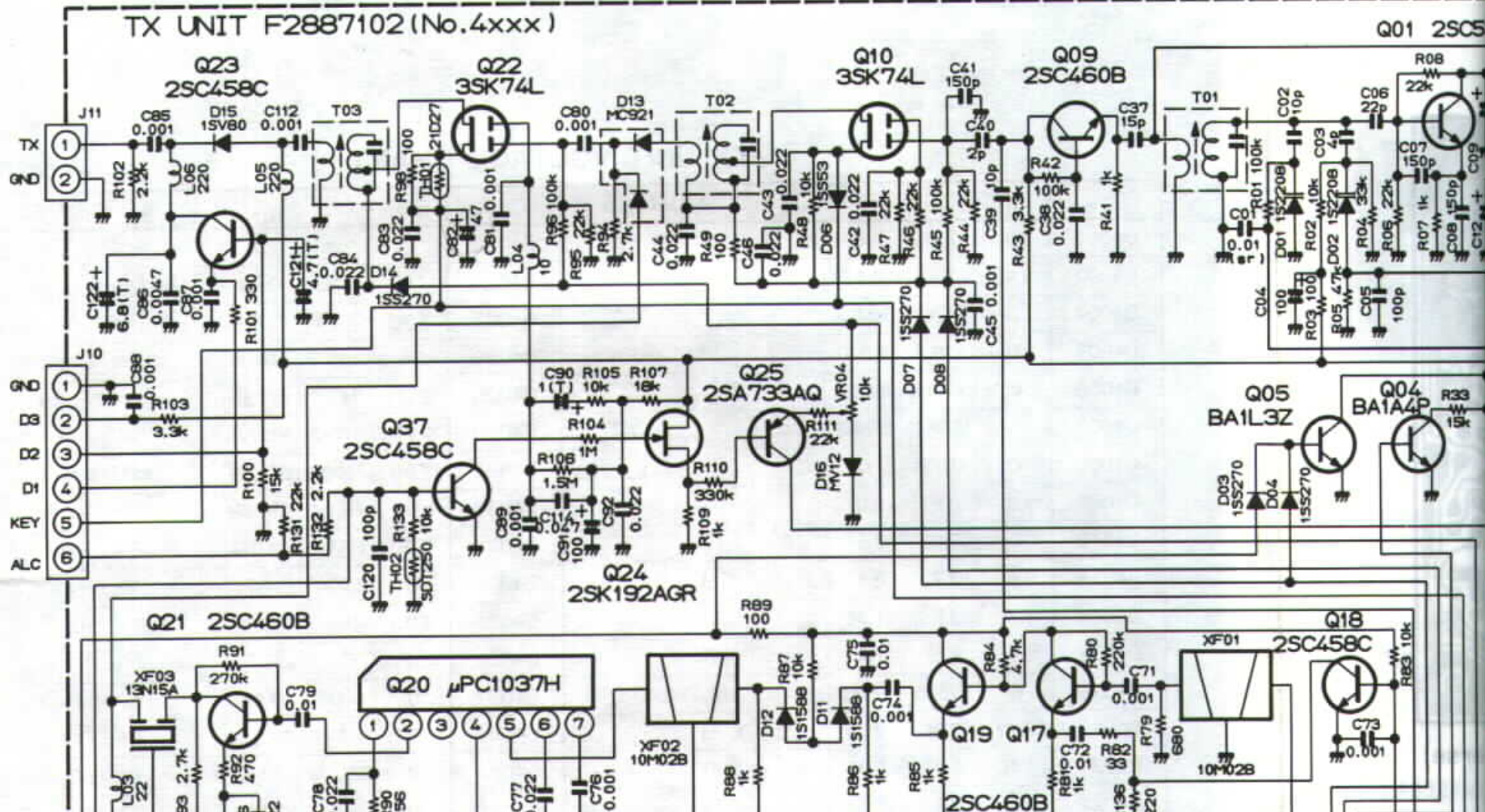
erse)

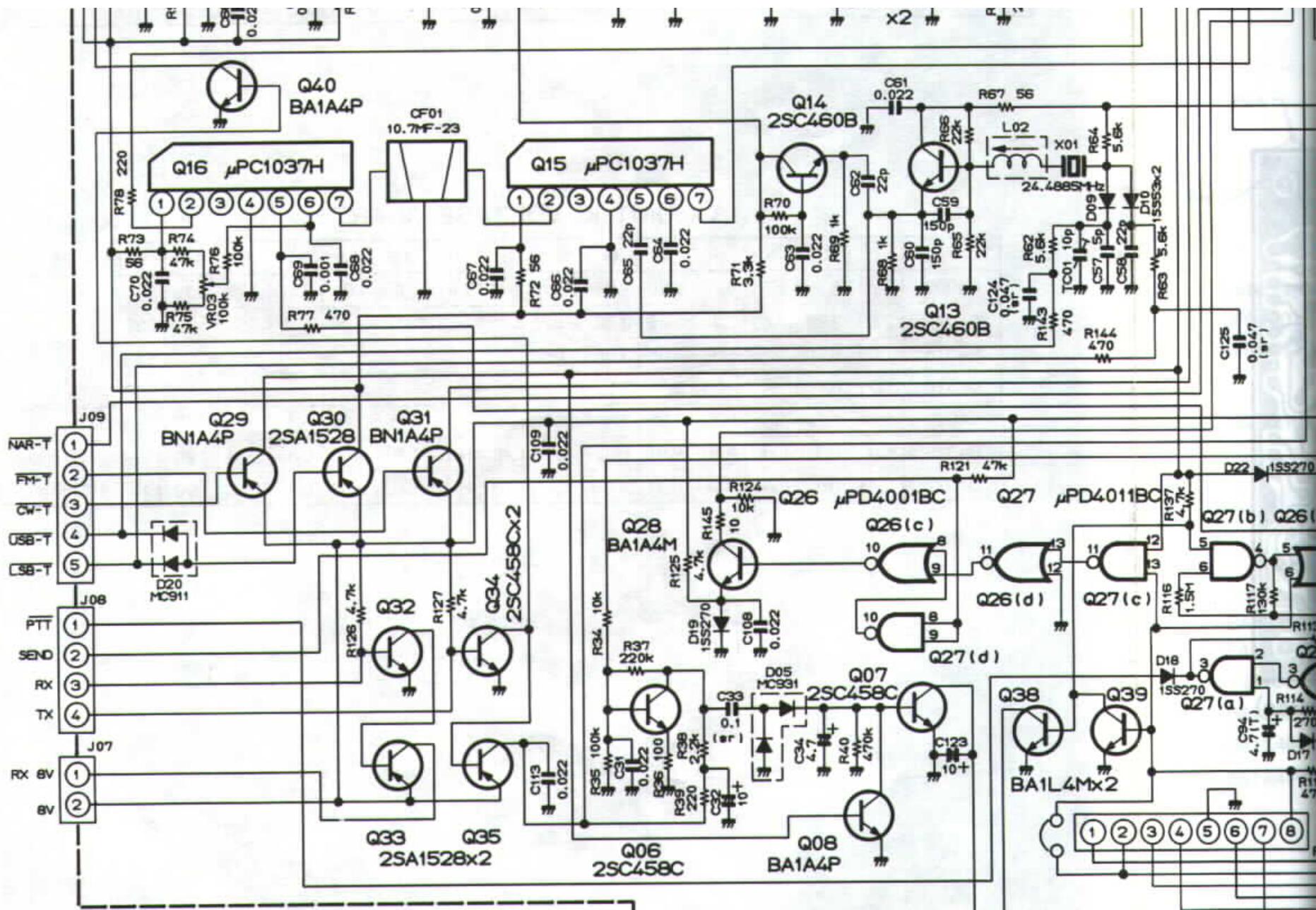






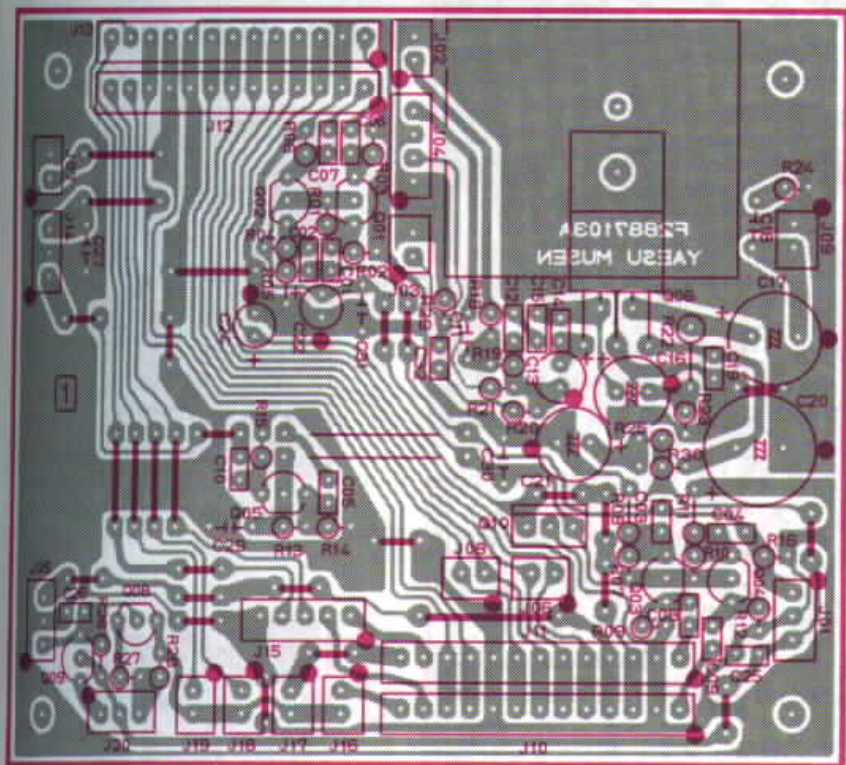
TX UNIT CIRCUIT DIAGRAM



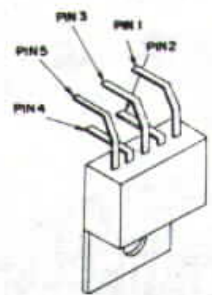
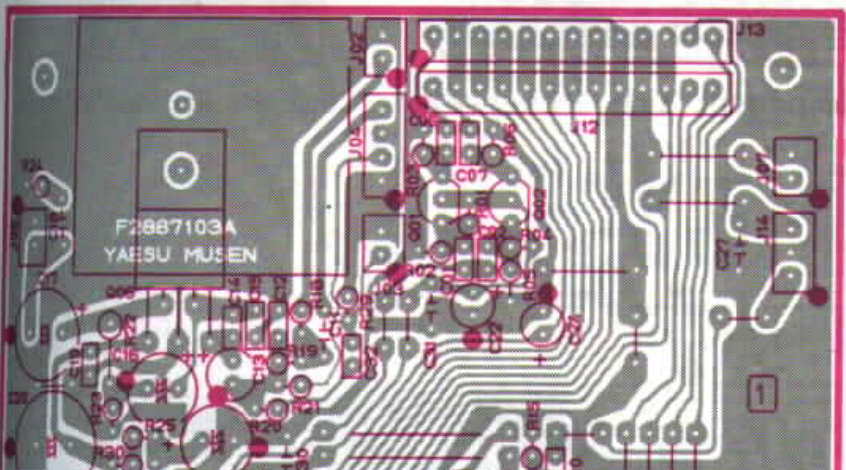


AF UNIT

AF UNIT (No. 5XXX)

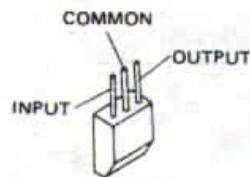


Component side (obverse)



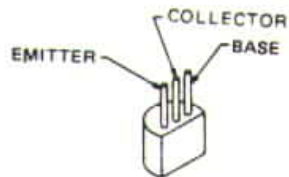
μPC2002H(Q5006)

	E(S)
Q5001	3.4
Q5002	3.4
Q5003	3.4
Q5004	3.4

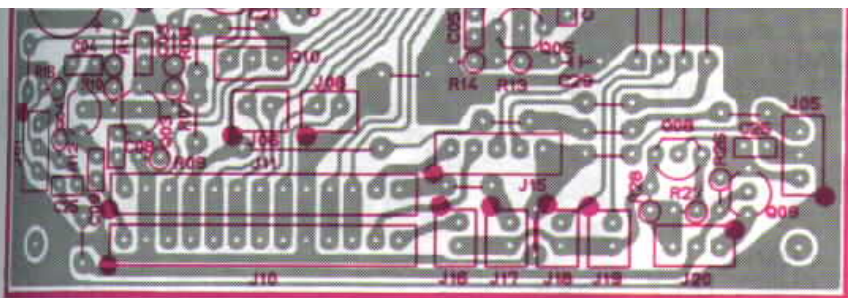


μPC78L08(Q5010)

	1
Q5006	0.7



2SC458C(Q5008,5009)
2SC460B(Q5001-5005)



Component side (reverse)

AF UNIT PARTS LAYOUT/CIRCUIT DIAGRAM

AF UNIT VOLTAGE CHART

(DC VOLTS)

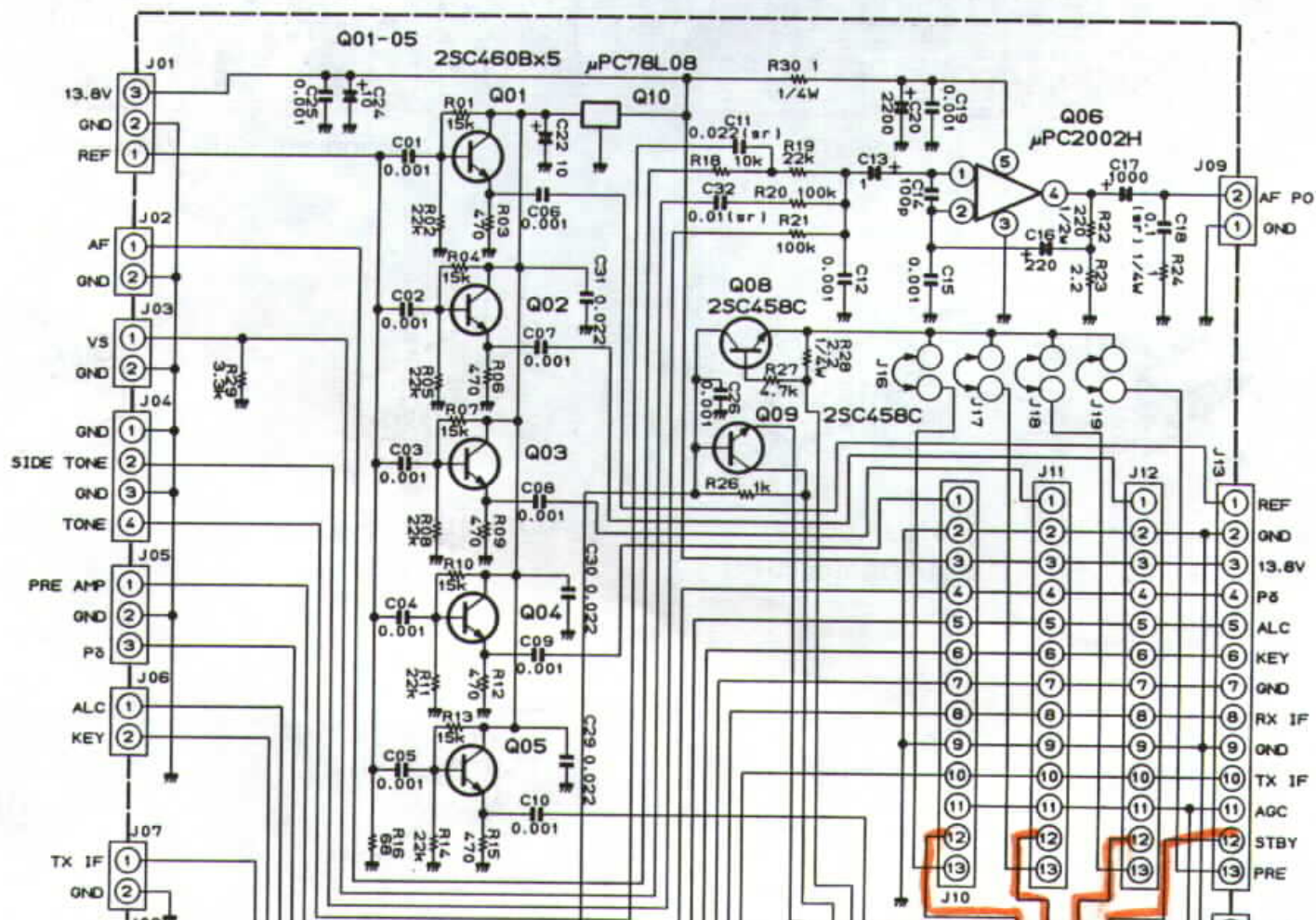
	E(S)	C(D)	(G ₁) ^B	(G ₂)	REMARKS		E(S)	C(D)	(G ₁) ^B	(G ₂)	REMARKS
Q5001	3.4	8.0	4.1			Q5005	3.4	8.0	4.1		
Q5002	3.4	8.0	4.1			Q5008	0.01/12.50	0.01/13.60	0.01/12.50		PRE AMP OFF/ON

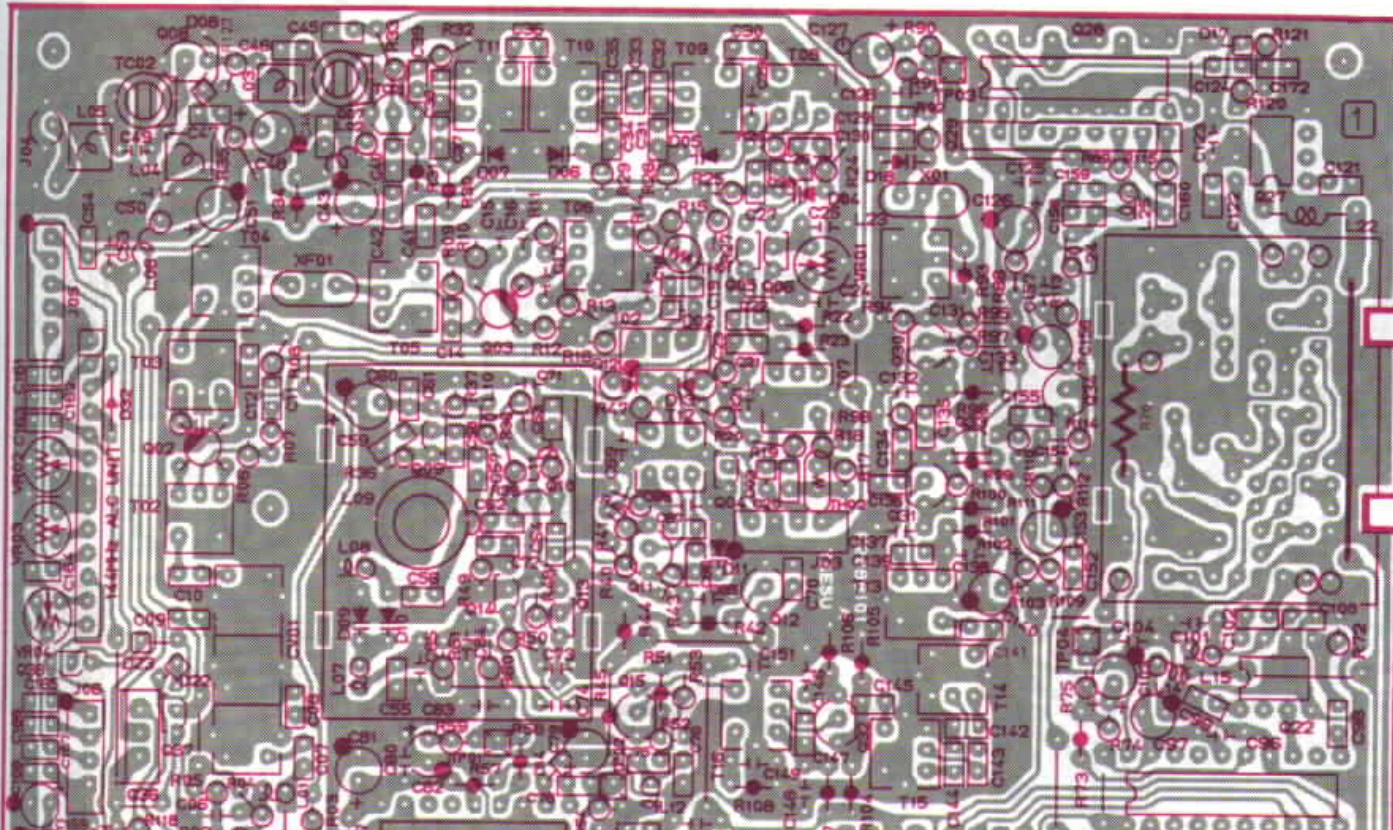
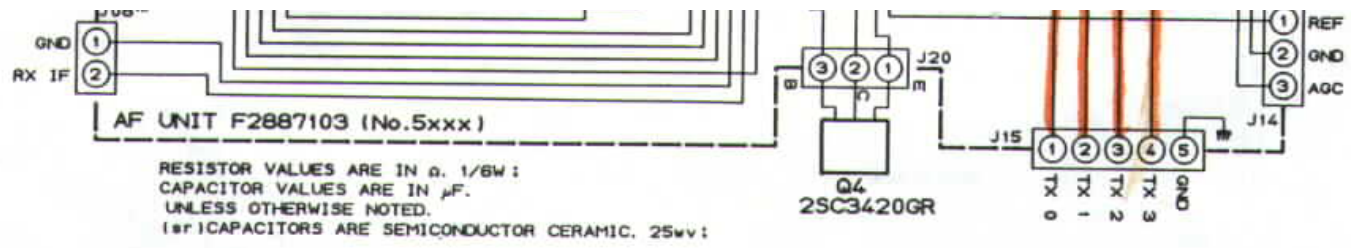
Q5003	3.4	8.0	4.1			Q5009	0.01/13.60	13.60	0.01/13.10			PRE AMP OFF/ON
Q5004	3.4	8.0	4.1									

AF UNIT IC VOLTAGE CHART

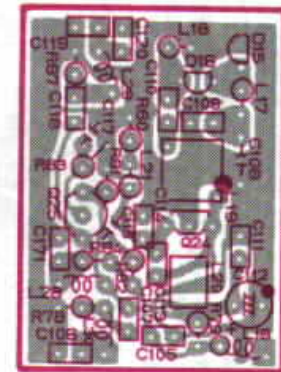
(DC VOLTS)

	1	2	3	4	5	REMARKS		1(IN)	2(GND)	3(OUT)	4	5	REMARKS
Q5006	0.7	0.7	0	6.4	13.6		Q5010	13.8	0	8.0			

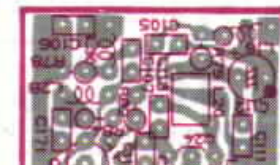


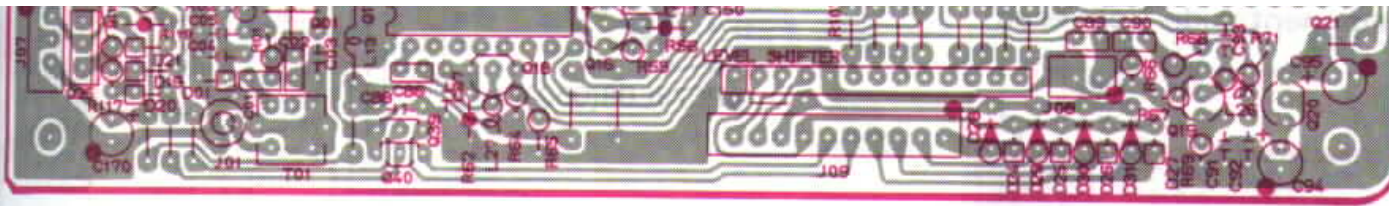


144MHz SUB VCO UNIT
(No. 6XXX)

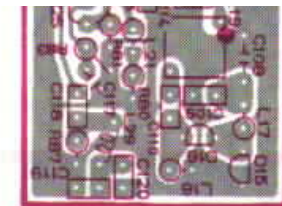


Component side (obverse)

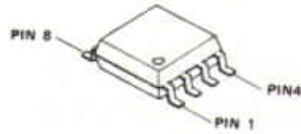
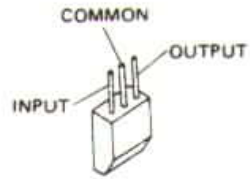




Component side (reverse)

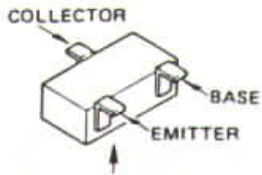


Component side (reverse)

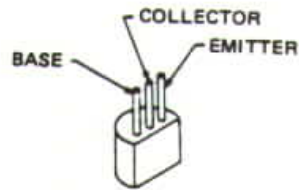


μ PC78L05(Q6020)

μ PC358G(Q9501)



Marked Surface



2SC2712GR(LG) (Q9101-9106)

2SA1528(Q6037,6038)

2SC458C

(Q6012,6018,6019)

2SC460B(Q6030,6034)

2SC535B

(Q6011,6015,6016)
(6031,6032)

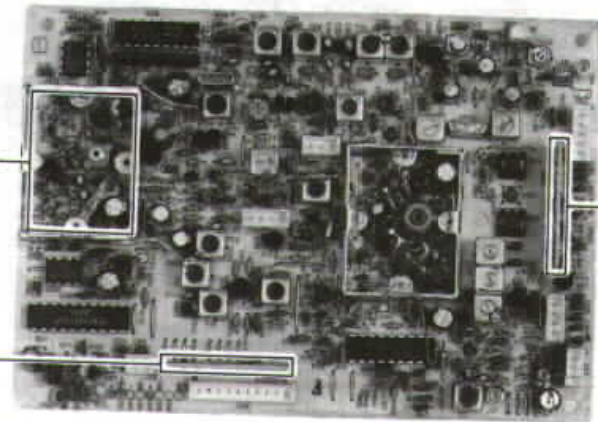
2SC2026(Q6007)

2SC2053(Q6008)

144MHz
SUB VCO UNIT

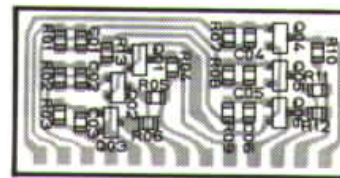
144MHz
SHIFT UNIT

144MHz
ALC UNIT



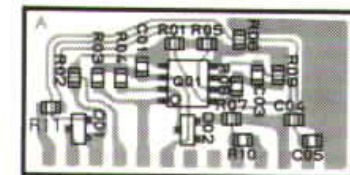
144MHz SHIFT UNIT
(No. 91XX)

144MHz ALC UNIT
(No. 95XX)



① ④ ⑦ ⑩ ⑬

Solder side (obverse)

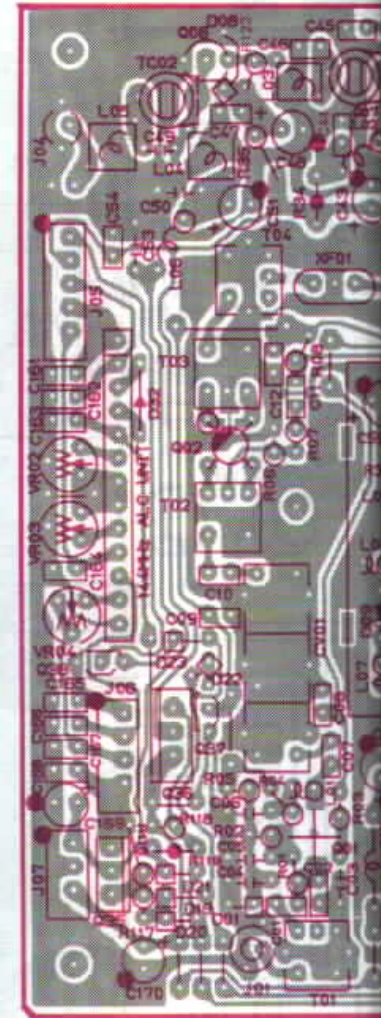
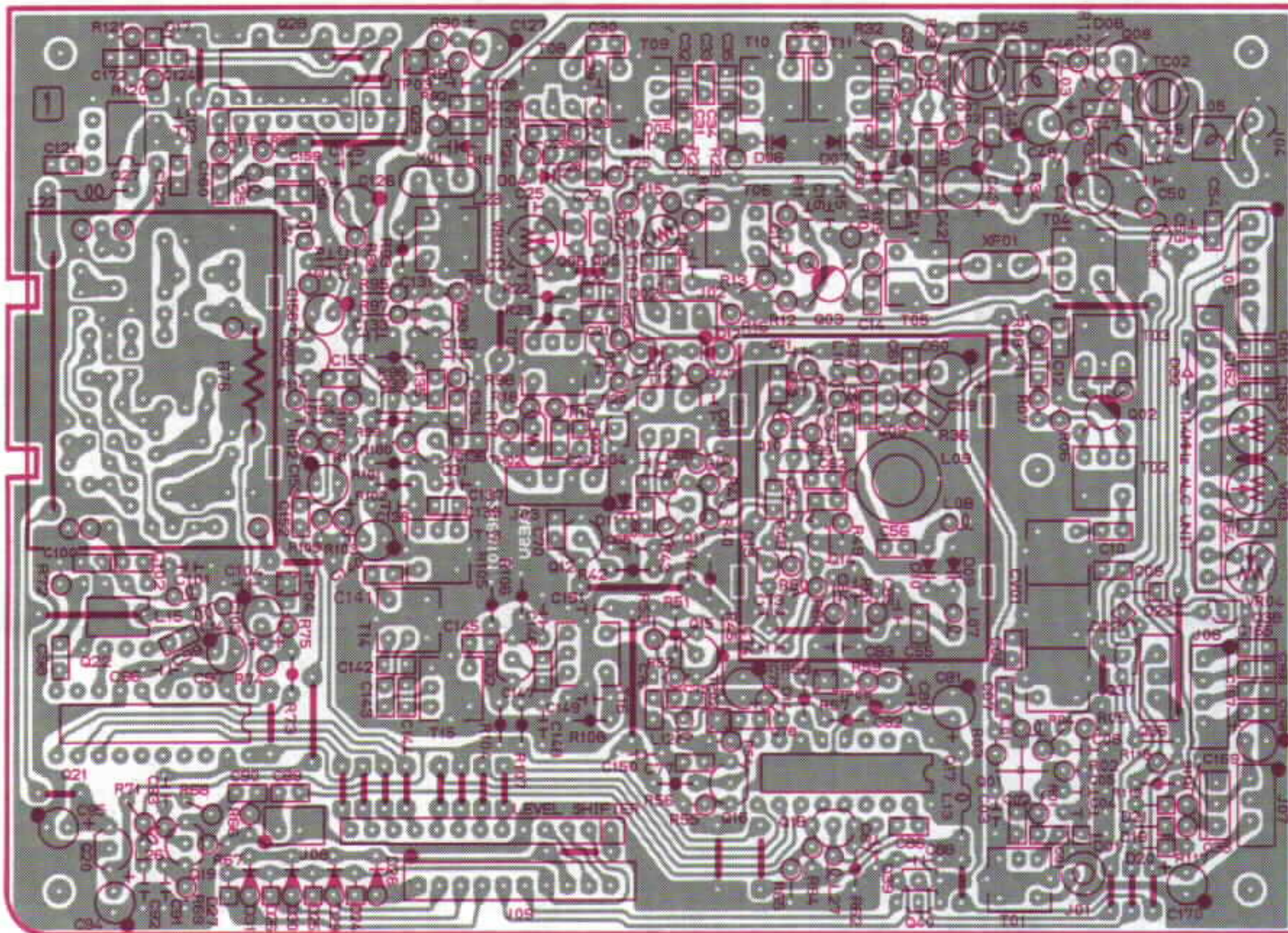


① ④ ⑦ ⑩ ⑬

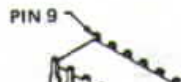
Solder side (obverse)

144MHz MAIN UNIT PARTS LAYOUT

144MHz MAIN UNIT (No. 6XXX)



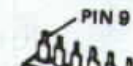
Component side (obverse)



PIN 15

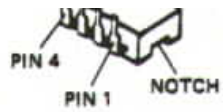


PIN 20

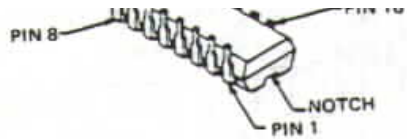


COMMON

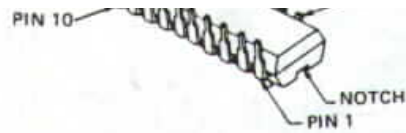
OUT



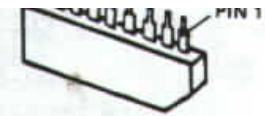
MB504(Q6022)
MB505-16(Q6027)



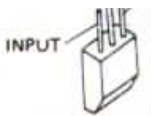
TC9122P(Q6028)
MC145155P(Q6017)



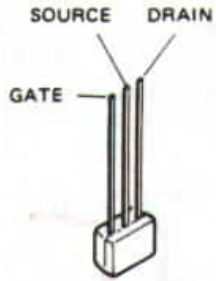
MC145156P(Q6021)



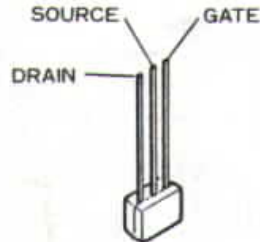
TC5081AP(Q6029)



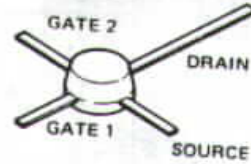
μPC78L05(Q6020)



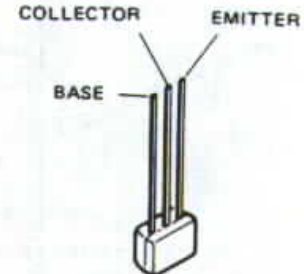
2SK192AGR(Q6009)
2SK241GR
(Q6005,6006,6010
6013,6014,6033)



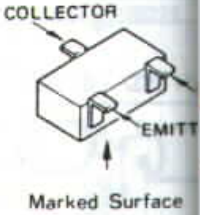
2SK507F(Q6024)



3SK122L(Q6001,6003)



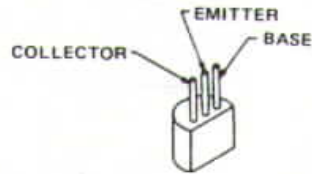
BA1A4P
(Q6004,6039,6040)



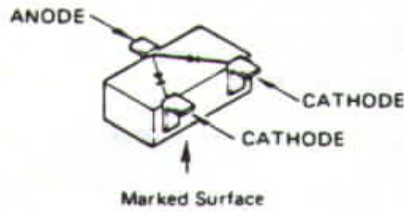
2SC2712GR(LG)(Q910)



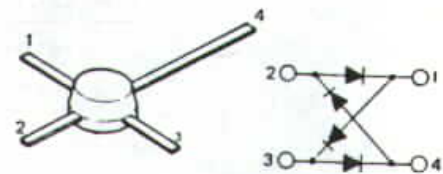
2SB772Q(Q6035,6036)



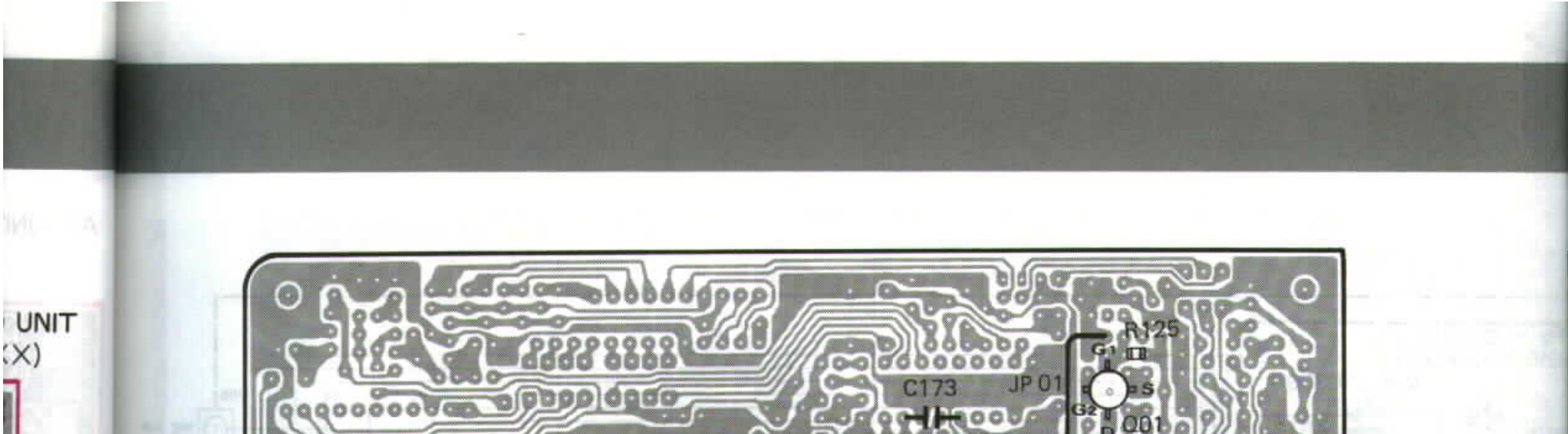
2SC3355(Q6025)

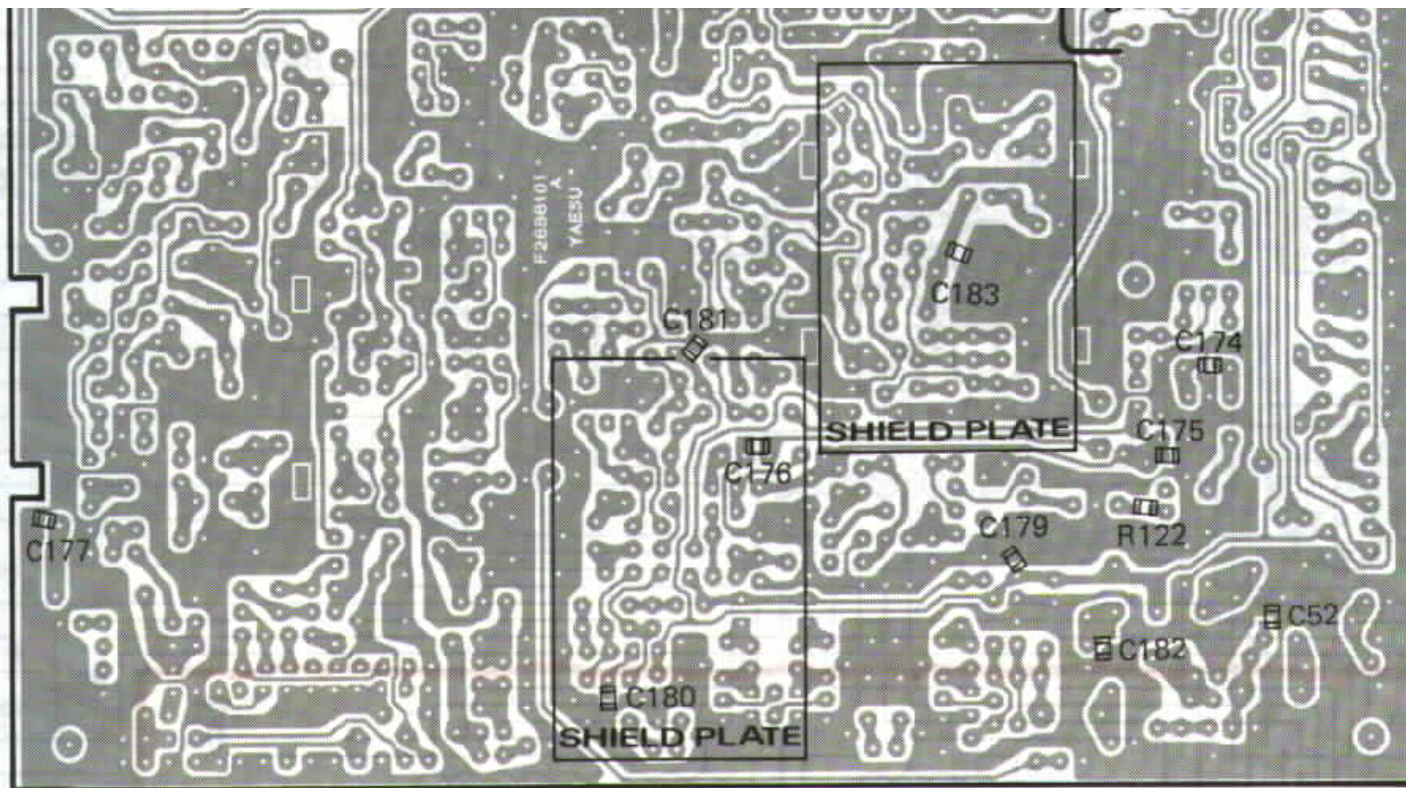


1SS181(A3)(Q9501,9502)



ND487C1-3R(Q6002)





Solder side (obverse)

144MHz MAIN UNIT VOLTAGE CHART

(DC VOLTS)

	E(S)	C(D)	(G ₁) ^B	(G ₂)	REMARKS		E(S)	C(D)	(G ₁) ^B	(G ₂)	REMARKS
Q6001	1.03	8.70	0.93	2.04	RX	Q6018	0.2	9.0	2.3		
Q6003	0.6	8.4	0.6	4.5	RX	Q6019	1.5	8.8	2.1		
Q6004	0/9.0	0/0	0/0.01		RX / TX	Q6024	1.3	8.9	0		
Q6005	1.0	8.6	0		TX	Q6025	1.3	7.8	2.0		
Q6006	1.0	8.6	0		TX	Q6030	2.3	7.9	2.9		
Q6007	1.0	8.9	2.5		TX	Q6031	0.9	7.8	1.5		
Q6008	0	13.5	0.7		TX	Q6032	8.70	1.96	1.20		
Q6009	0.66	8.50	0			Q6033	0	4.1	0		
Q6010	0	9.0	0			Q6034	0.9	4.9	1.5		
Q6011	1.45	8.70	1.65			Q6035	13.7	13.8	12.9		
Q6012	0	0.07	0.71			Q6036	9.00	0/9.00	9.05/8.32		RX / TX

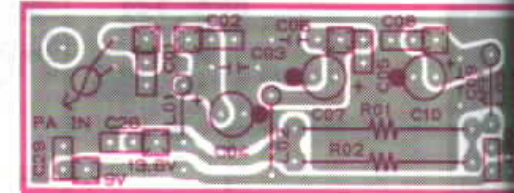
144MHz
ALC UN

UNIT
(X)

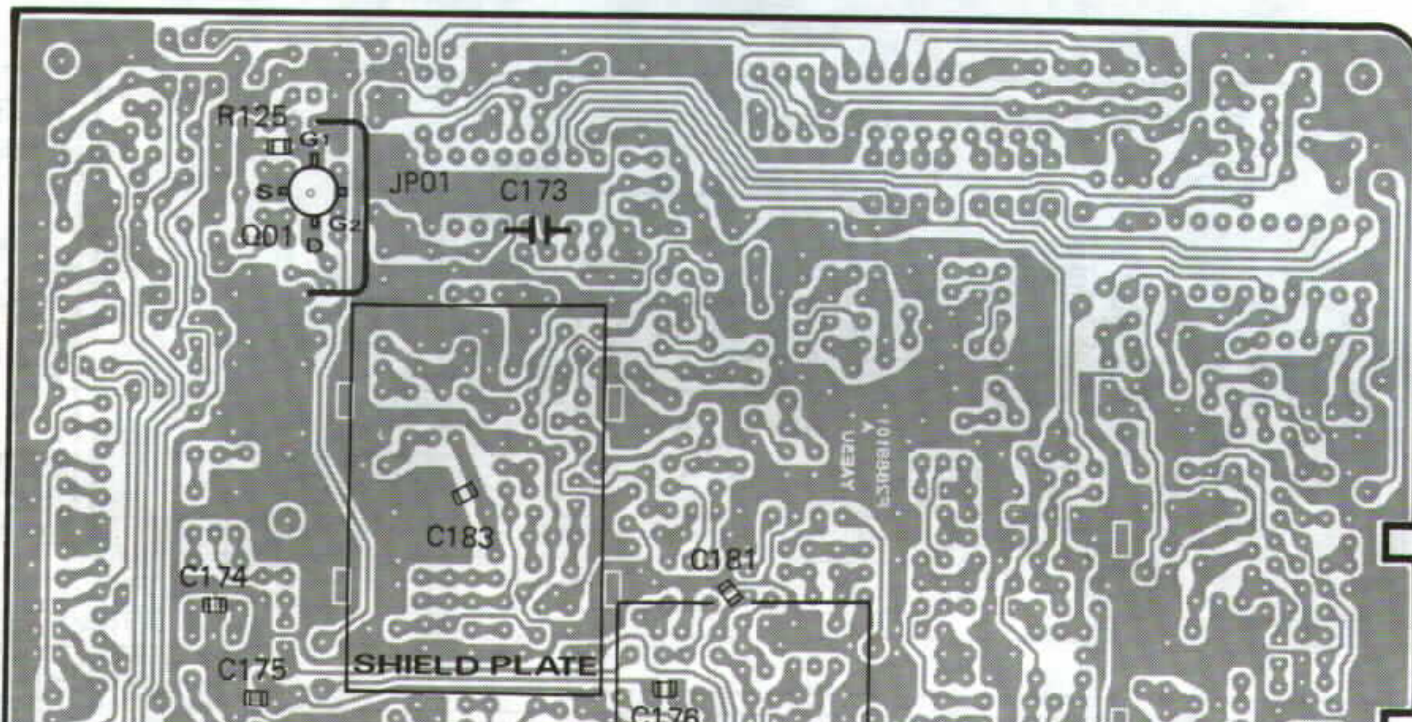
Q6013	3.3	9.0	2.6		Q6037	9.00	9.00/0	0.76/9.00		RX / TX
Q6014	0	4.9	0		Q6038	0/12.60	0/12.60	0.01/0.82		PRE AMP OFF/ON
Q6015	1.10	5.80	1.73		Q6039	0	0.13/8.80	4.90/0		RX / TX
Q6016	1.40	5.20	1.14		Q6040	0	8.85/0.22	0/4.90		RX / TX

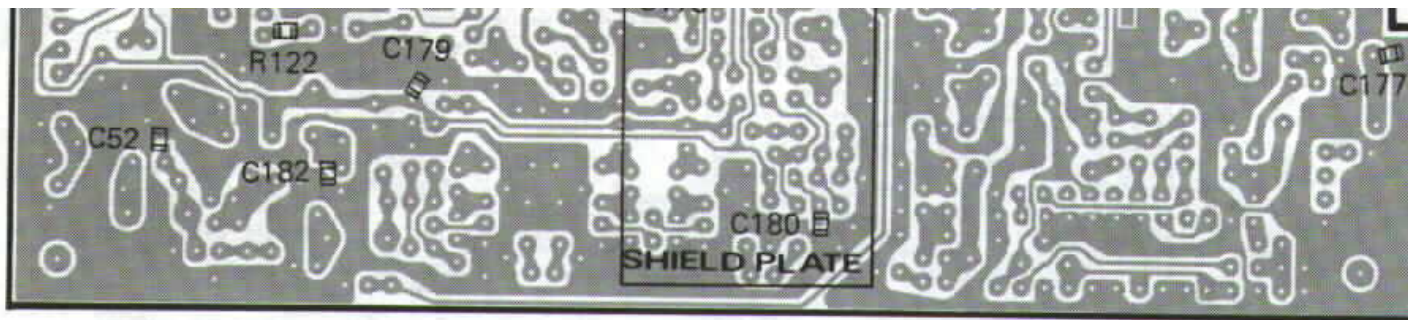
144MHz PA UNIT IC VOLTAGE CHART (DC VOLTS)

	1	2	3	4	5	REMARKS
Q6501	—	13.80	9.00	13.34	—	@ 10W output



144MHz MAIN UNIT PARTS LAYOUT





e)

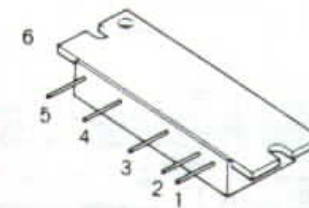
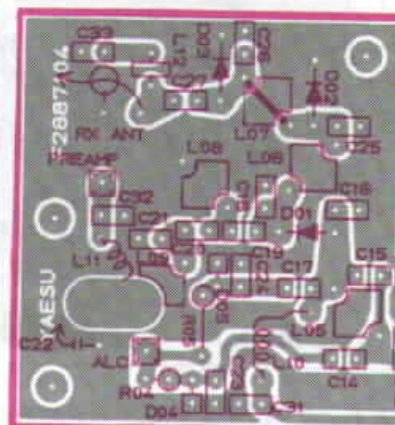
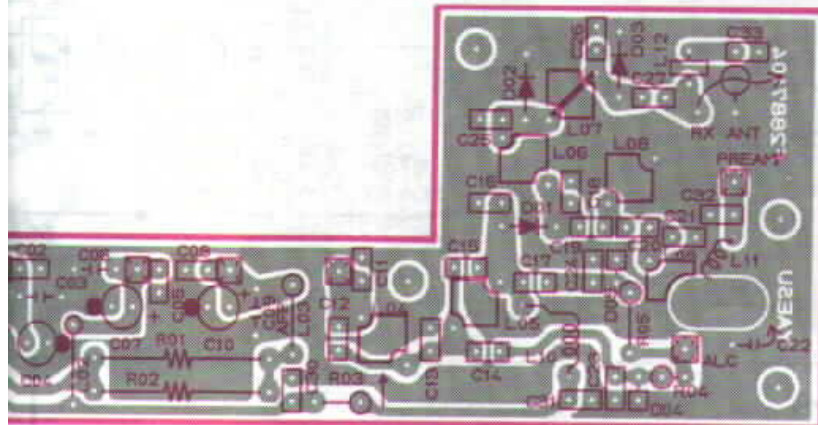
Solder side (reverse)

144MHz MAIN UNIT IC VOLTAGE CHART

(DC VOLTS)

	1(IN)	2(GND)	3(OUT)	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	REMARKS
Q6002	0		0																		RX
Q6017	8.80	0	—	—	8.80	2.70	0	8.80	0.07	0.075	0.07	0.05	—	—	—	—	3.50	0			
Q6020	8.8	0	5.0																		
Q6021	0	4.90	—	—	4.90	0.97	0	4.30	—	2.00	0.06	0.05	0.06	—	—	—	2.60	—	2.06	4.90	
Q6022	2.60	5.00	—	2.96	0	4.30	—	2.60													
Q6027	2.5	5.0	5.0	2.7	0	2.5															
Q6028	7.50	3.10	0	7.50	0	0	7.50	0	0	0	0	0	0	0	0	0	0.34	0			
Q6029	3.40	3.30	2.80	—	7.50	—	3.40	0.34	0												

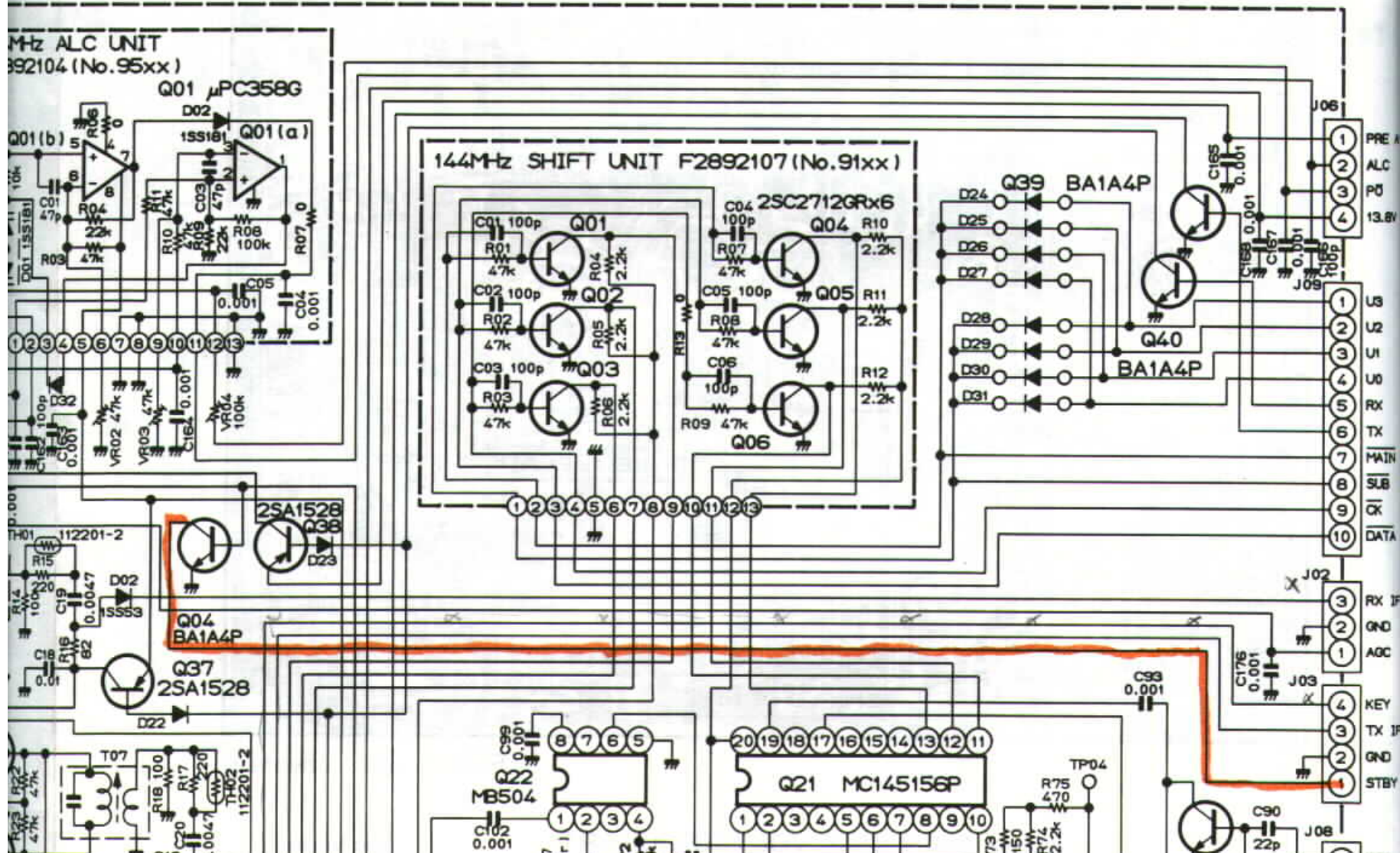
144MHz PA UNIT (No. 65XX)

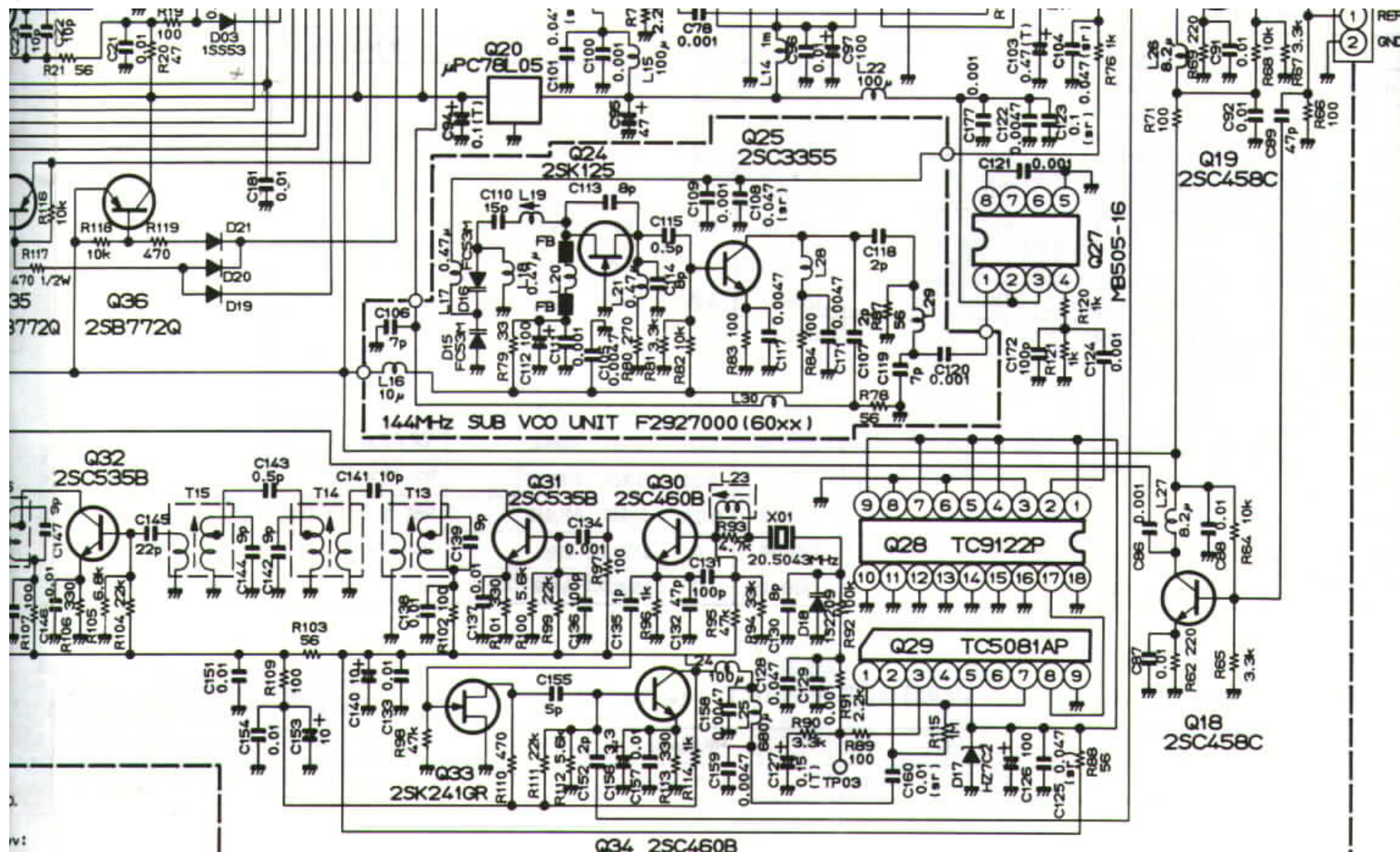


1. INPUT
2. Vcc₁
3. Vcc₂
4. Vcc₃
5. OUTPUT
6. FLA

M57713(10W) (Q6501)
M57727(25W)

Component side (reverse)

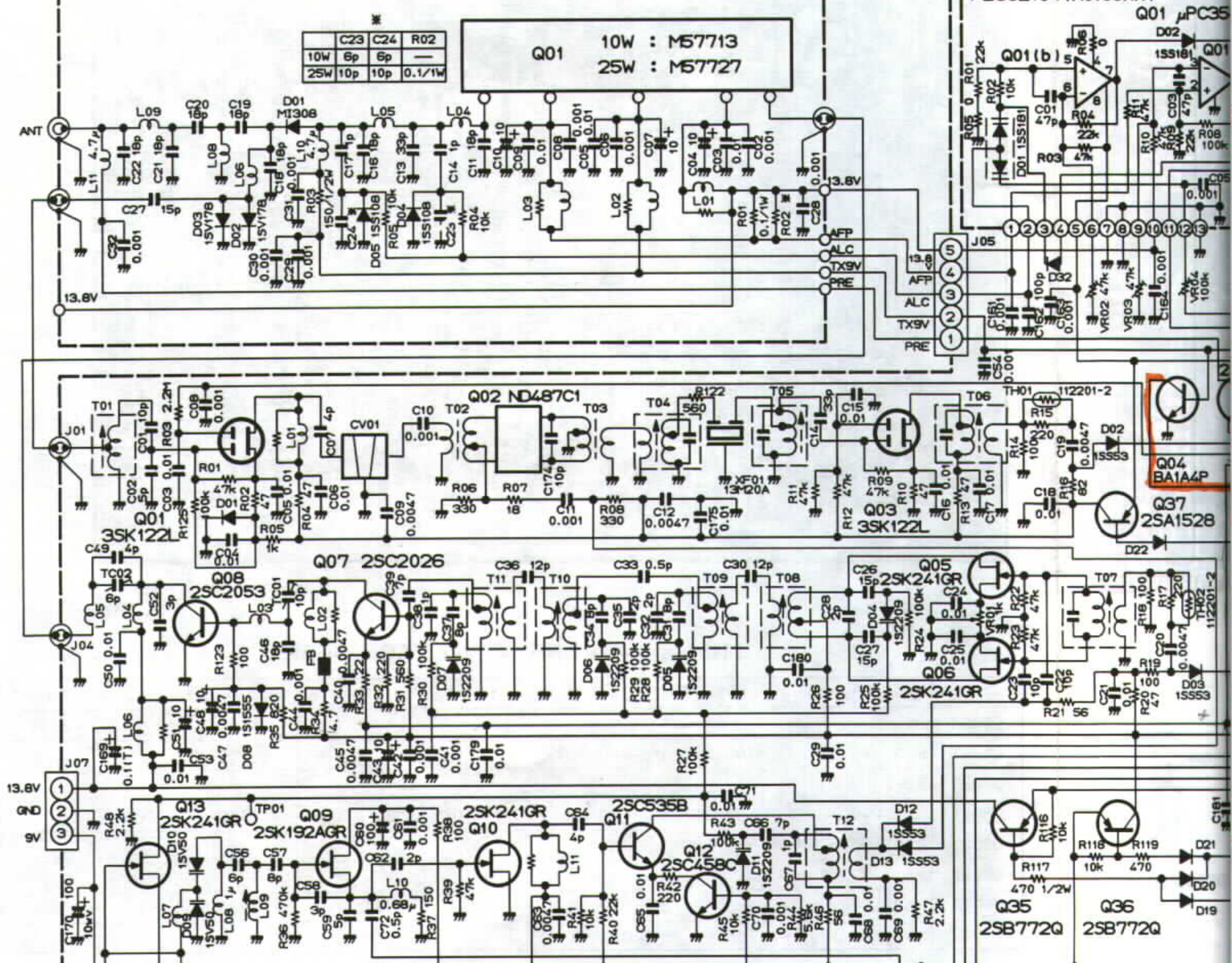


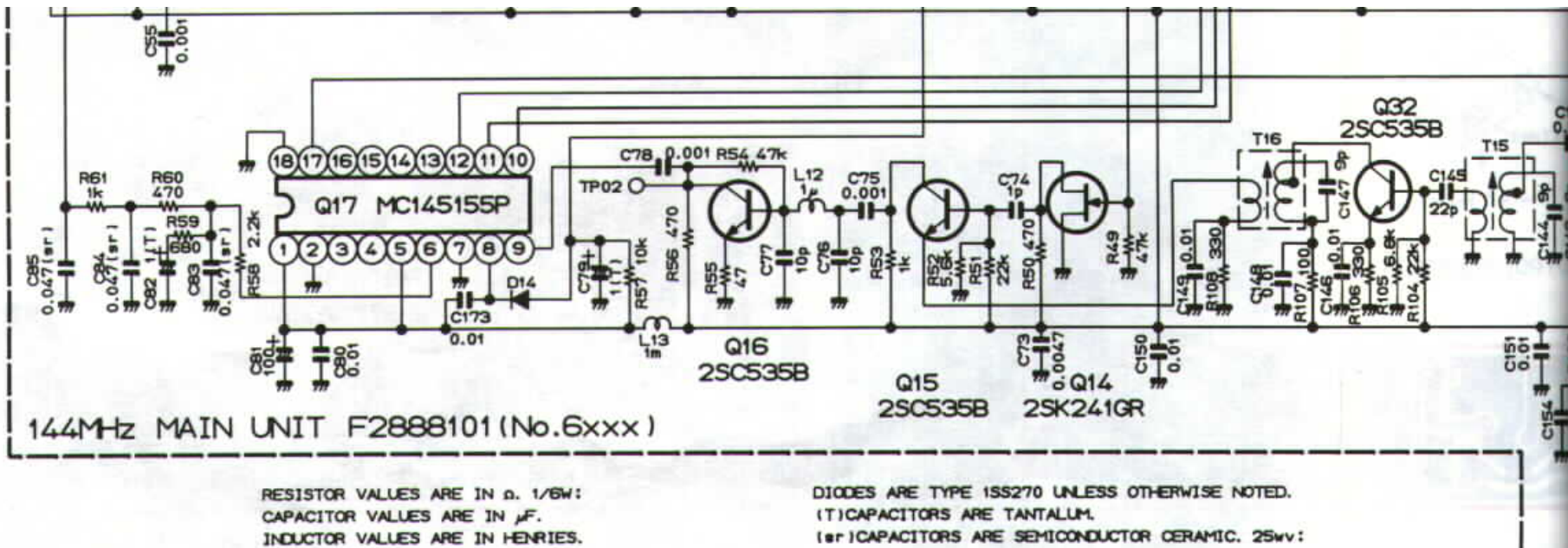


144MHz MAIN UNIT CIRCUIT DIAGRAM

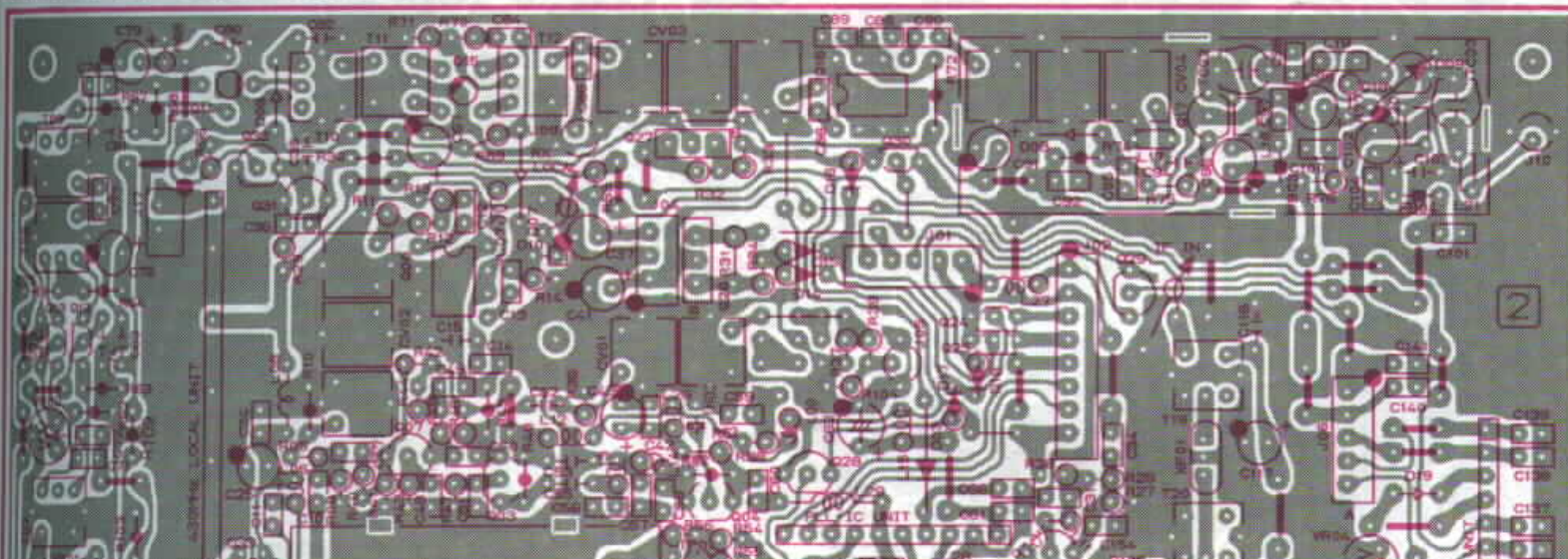
144MHz P.A UNIT F2887104 (No.65xx)

144MHz ALC UNIT F2892104 (No.95xx)





430MHz RF UNIT (No. 7XXX)

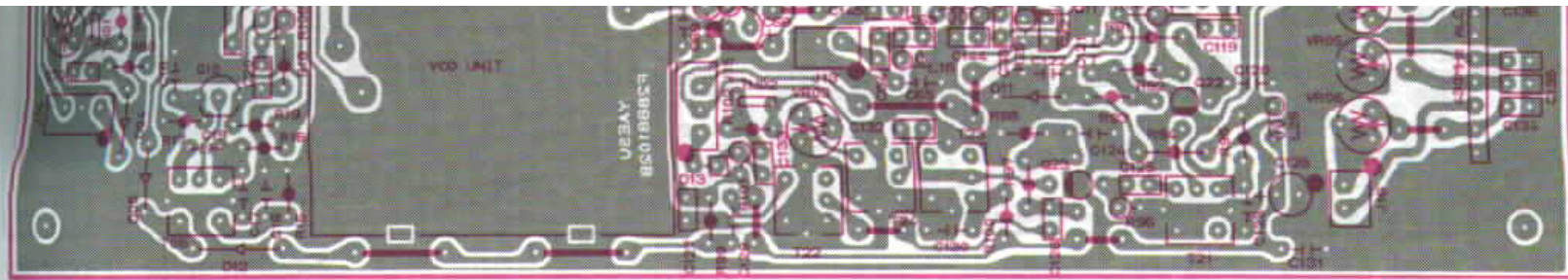


RX
TX
MAIN
SUB
DATA

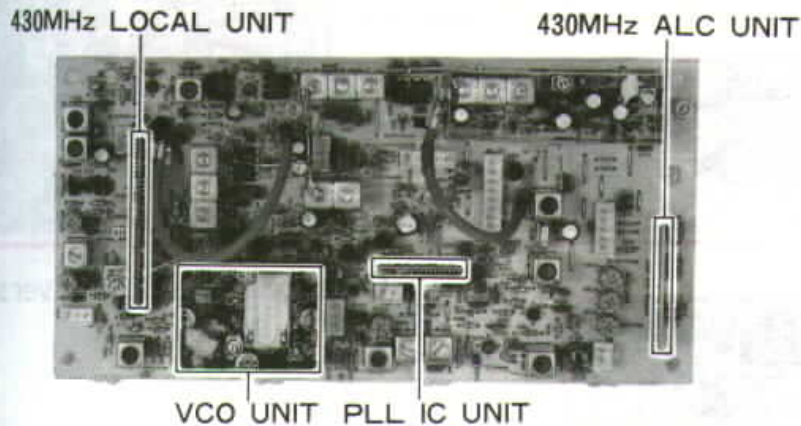
RX IF
GND
AGC

KEY
TX IF
GND
STBY

REF
GND



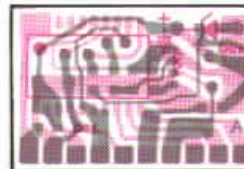
Component side (obverse)



PLL IC UNIT
(No. 76XX)

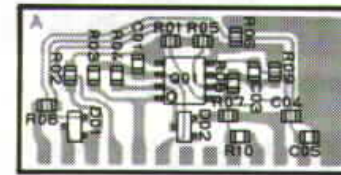


Mixed component side (obverse)



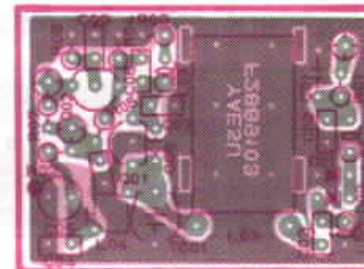
Mixed component side (reverse)

430MHz ALC UNIT
(No. 96XX)



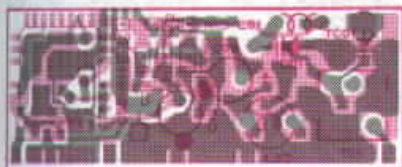
Solder side (obverse)

VCO UNIT (No. 74XX)

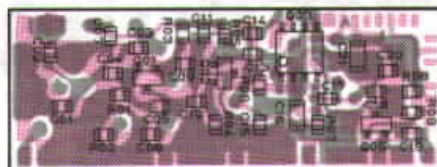


Component side (obverse)

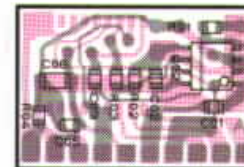
430MHz LOCAL UNIT (No. 77XX)



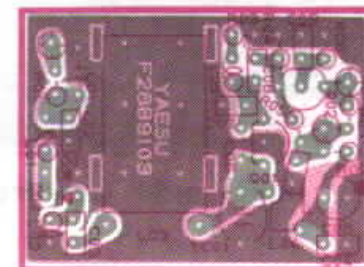
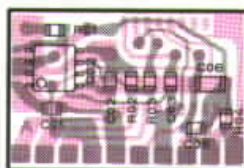
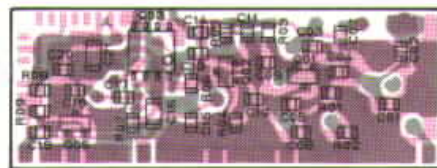
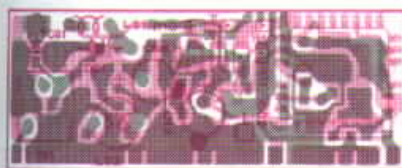
Mixed component side (obverse)



Chip only side (obverse)



Chip only side (obverse)



PIN 8

μPC3
MB5

SOUR

2SK2
2SK3

B

2S
2S
2S

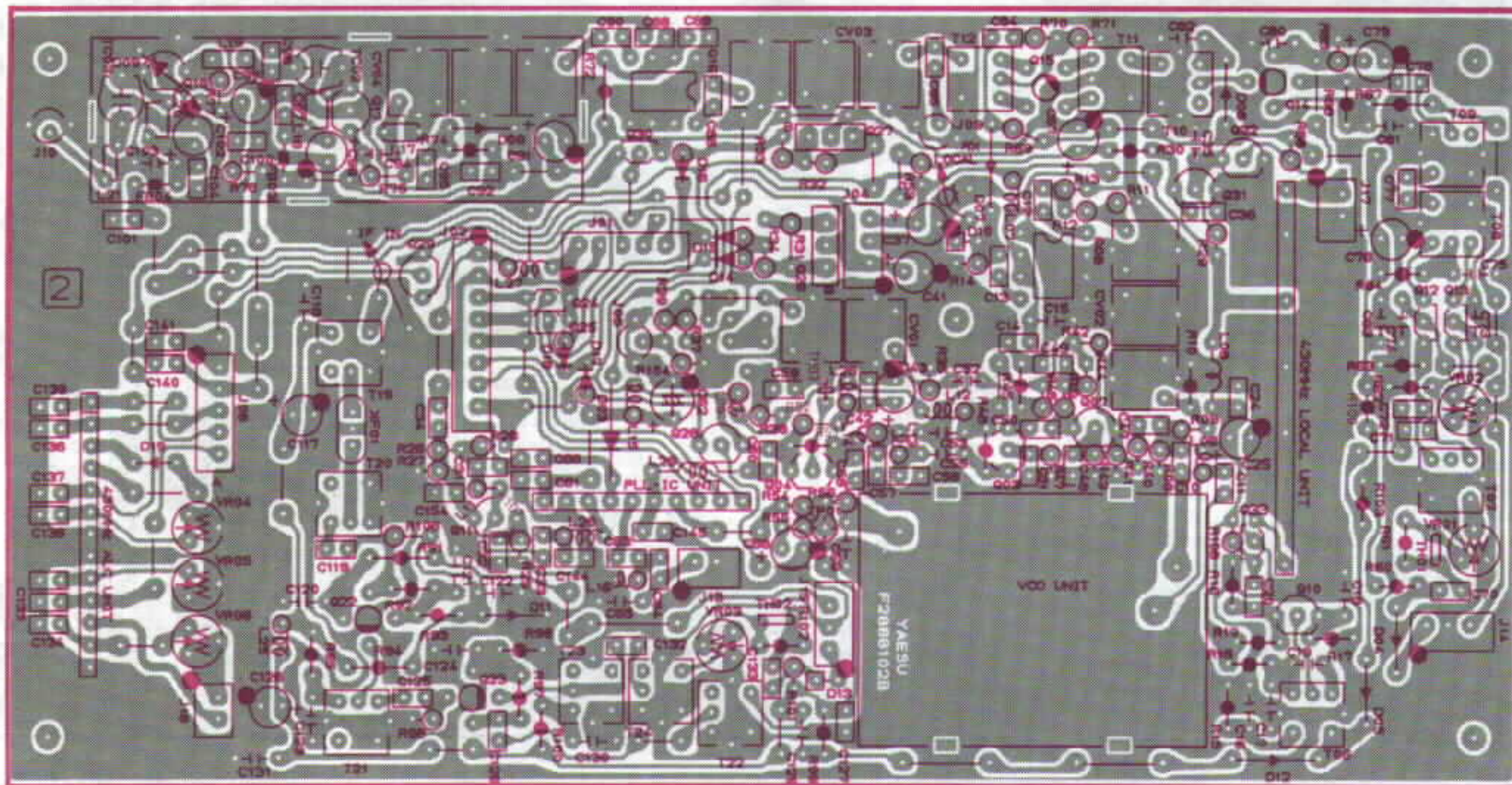
Mixed component side (reverse)

Chip only side (reverse)

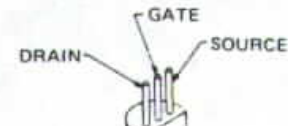
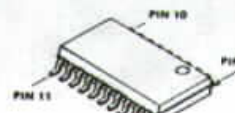
Chip only side (reverse)


Component side (reverse)

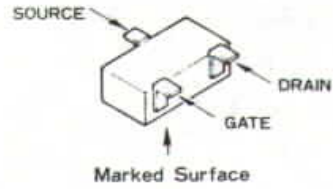
430MHz RF UNIT PARTS LAYOUT




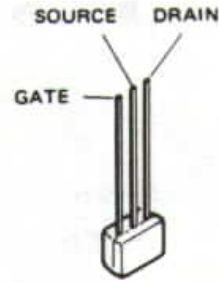
Component side (reverse)




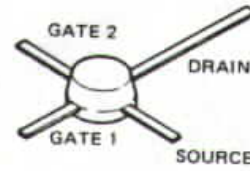

 μPC358G(Q9601)
 MB503(Q7602,7703)



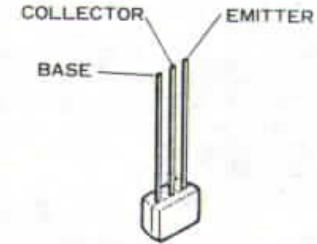

 μPC1656C(Q7008,7016)



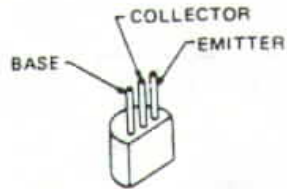

 JLC1007(Q7601)



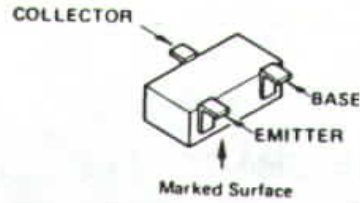

 2SK125(Q7401)



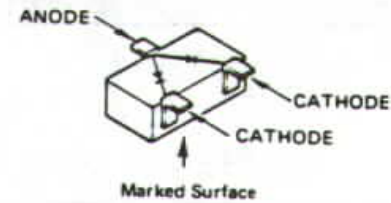
2SK210GR(YG) (Q7701)
 2SK302GR(TG) (Q7702)



2SK241GR
 (Q7012,7013,7033)

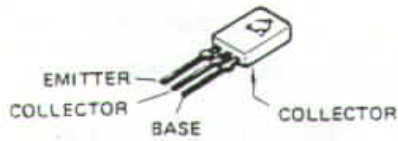


3SK81(Q7023)
 3SK122L(Q7014,7022)



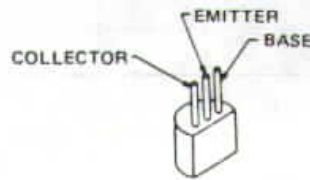
BA1A4P
 (Q7024,7025,7030)
 7034

2SA1528(Q7028,7029)
 2SC458C
 (Q7011,7031,7032)
 2SC460B(Q7010)



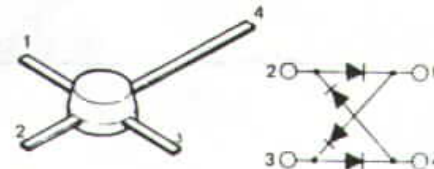
2SB772Q(Q7026,7027)

2SC2712GR(LG) (Q7705)

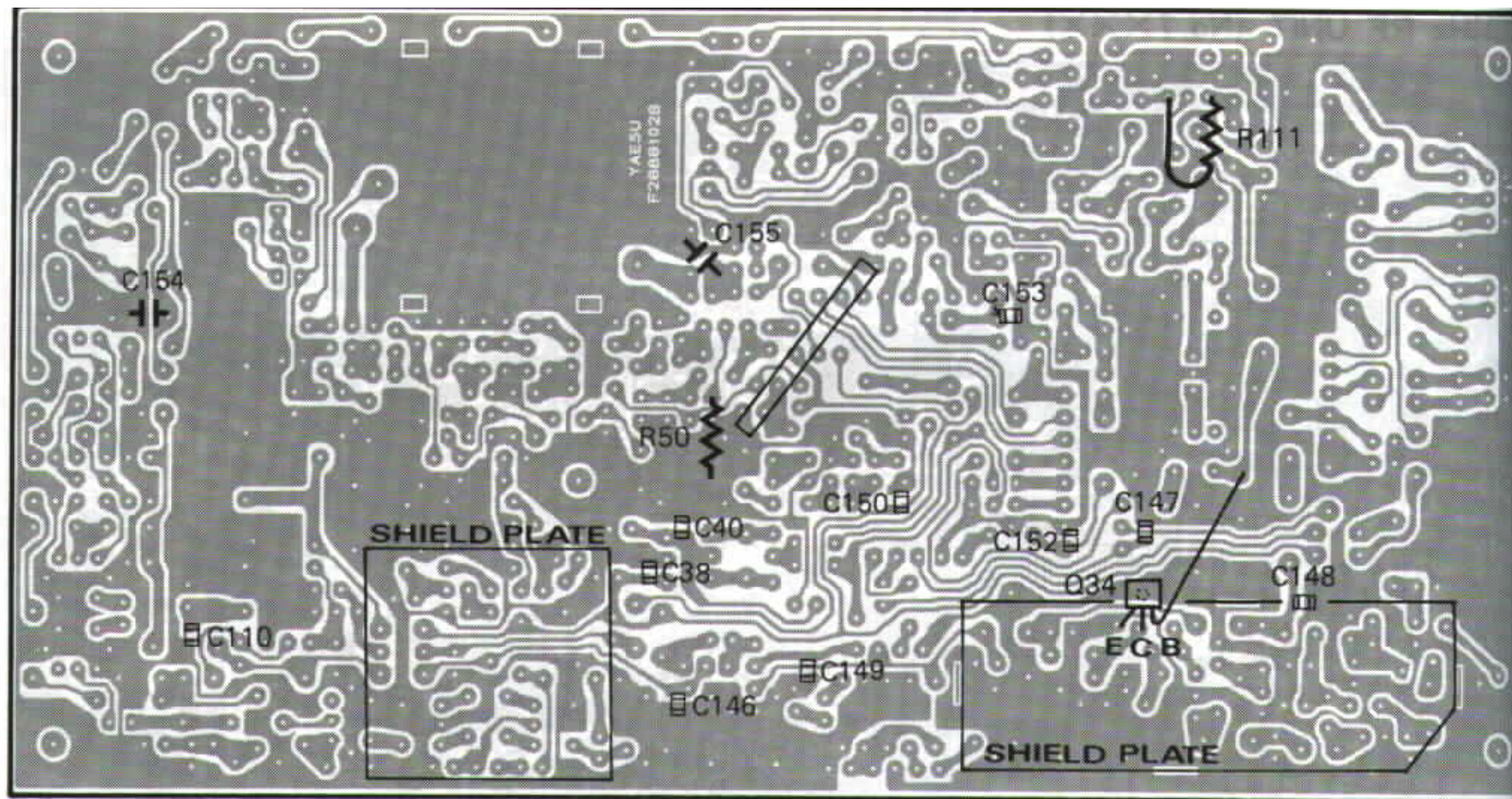


2SC2407(1) (Q7018)
 2SC3355

1SS181(A3) (Q9601,9602)



ND487C2-3R(Q7015)

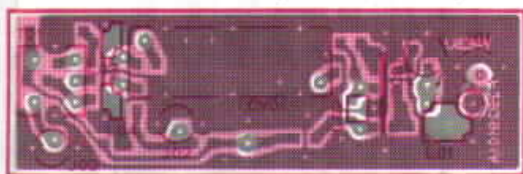


se)

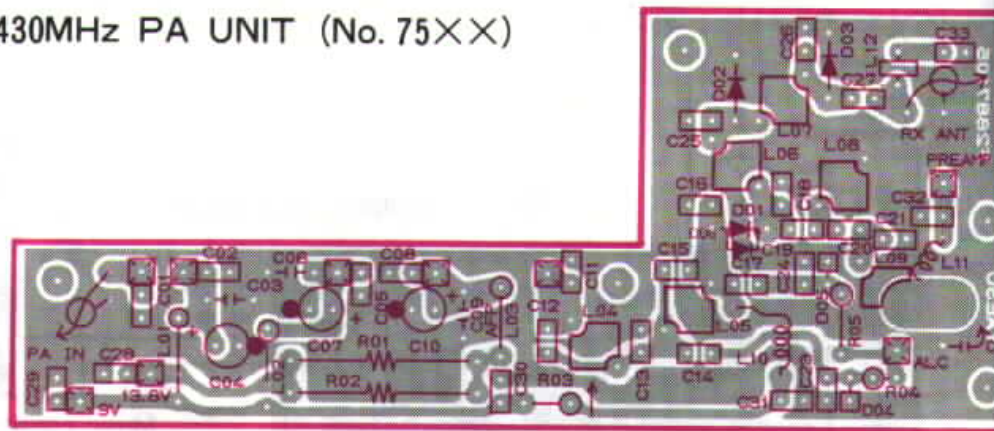
Solder side (reverse)

430MHz FRONTEND UNIT
(No. 78XX)

430MHz PA UNIT (No. 75XX)

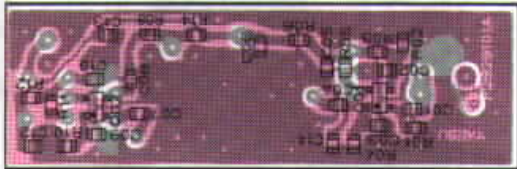


Component side (obverse)

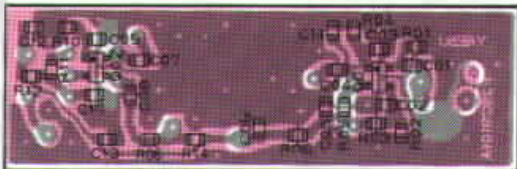


Component side (obverse)

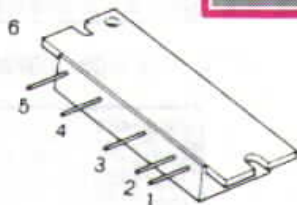
Component side (reverse)



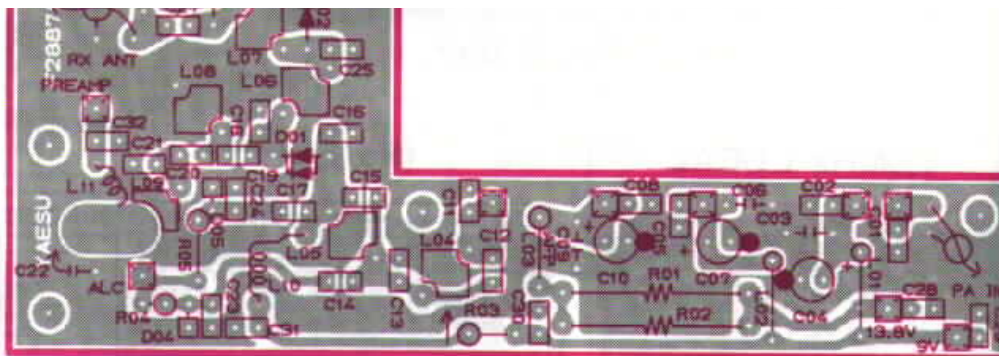
Chip side (obverse)



Chip side (reverse)



- 1. INPUT 2. Vcc₁ 3. Vcc₂
 - 4. Vcc₃ 5. OUTPUT 6. FLA
- M57716(10W) (Q7501)
M57745(25W)



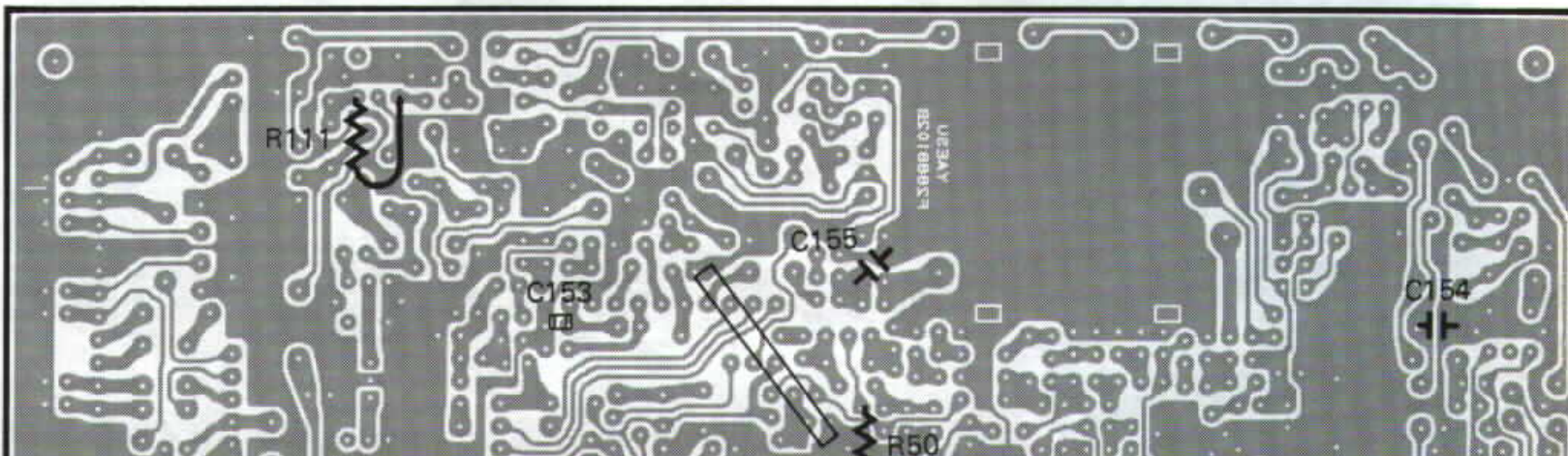
Component side (reverse)

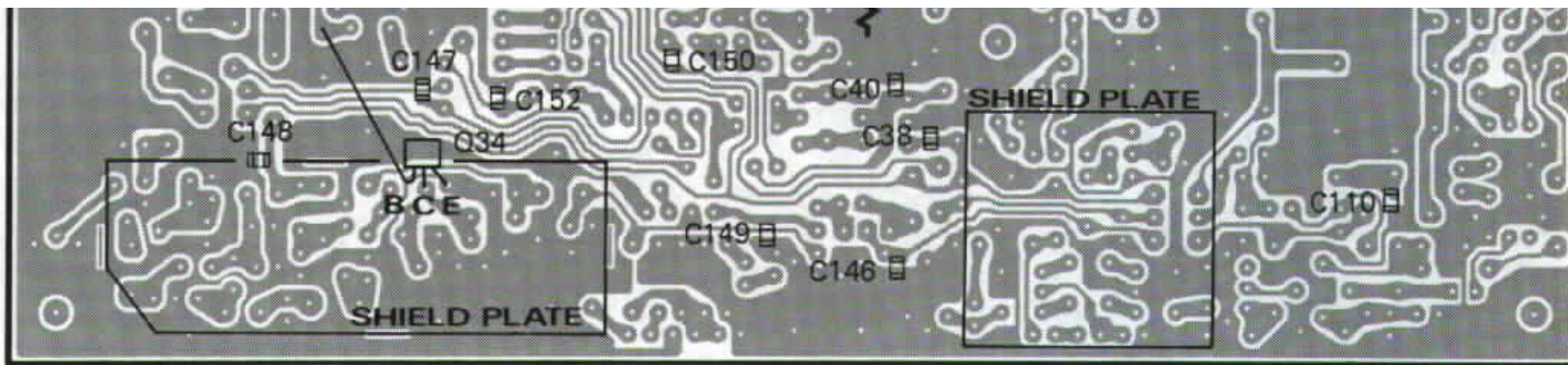
430MHz PA UNIT IC VOLTAGE CHART

(DC VOLTS)

	1	2	3	4	5	REMARKS
Q7501	-	9.0	13.8	13.3	-	@ 10W output

430MHz RF UNIT PARTS LAYOUT





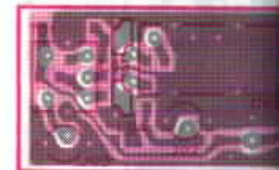
Solder side (obverse)

430MHz RF UNIT VOLTAGE CHART

(DC VOLTS)

	E(S)	C(D)	(G ₁) ^B	(G ₂)	REMARKS		E(S)	C(D)	(G ₁) ^B	(G ₂)	REMARKS
Q7003	1.50	4.40	2.15			Q7024	0	0.15/8.75	4.90/0		RX / TX
Q7004	0.5	5.6	1.3			Q7025	0	8.80/0.35	0/4.85		RX / TX
Q7007	1.27	5.53	2.02			Q7026	13.8	13.8/13.6	12.8/12.7		RX / TX
Q7010	0.9	8.1	1.6			Q7027	9.0	0/9.0	9.0/8.3		RX / TX
Q7011	1.20	5.90	1.85			Q7028	9.0	9.0/0	0.8/9.0		RX / TX
Q7012	0.80	8.75	0	0.80		Q7029	0/12.60	0/12.60	0.01/0.82		PRE AMP OFF/ON
Q7013	0.80	8.75	0	0.80		Q7030	0	0.25/0.03	0/9.00		RX / TX
Q7014	2.65	8.20	2.70	5.20		Q7031	0	0.037	0.65		
Q7017	0	9.00	0.75			Q7032	0	0	0.037		
Q7018	0	13.20	0.65			Q7033	0	7.3	0		
Q7022	1.03	8.57	0.92	2.03		Q7034	0/0.79	0	8.95/0		RX / TX
Q7023	0.70	8.70	0	0.89							

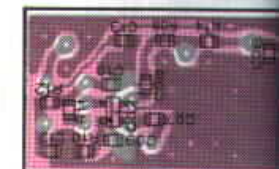
430MHz FROM



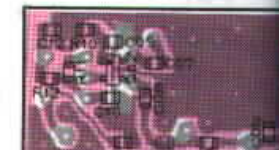
Component



Component



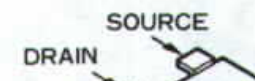
Chip



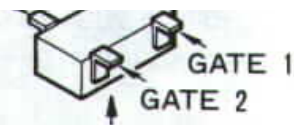
430MHz RF UNIT IC VOLTAGE CHART

(DC VOLTS)

	1(IN)	2(OUT)	3	4	5	6	7	8	REMARKS
Q7008	0.97	0	0	0	4.80	9.00	9.00	0	



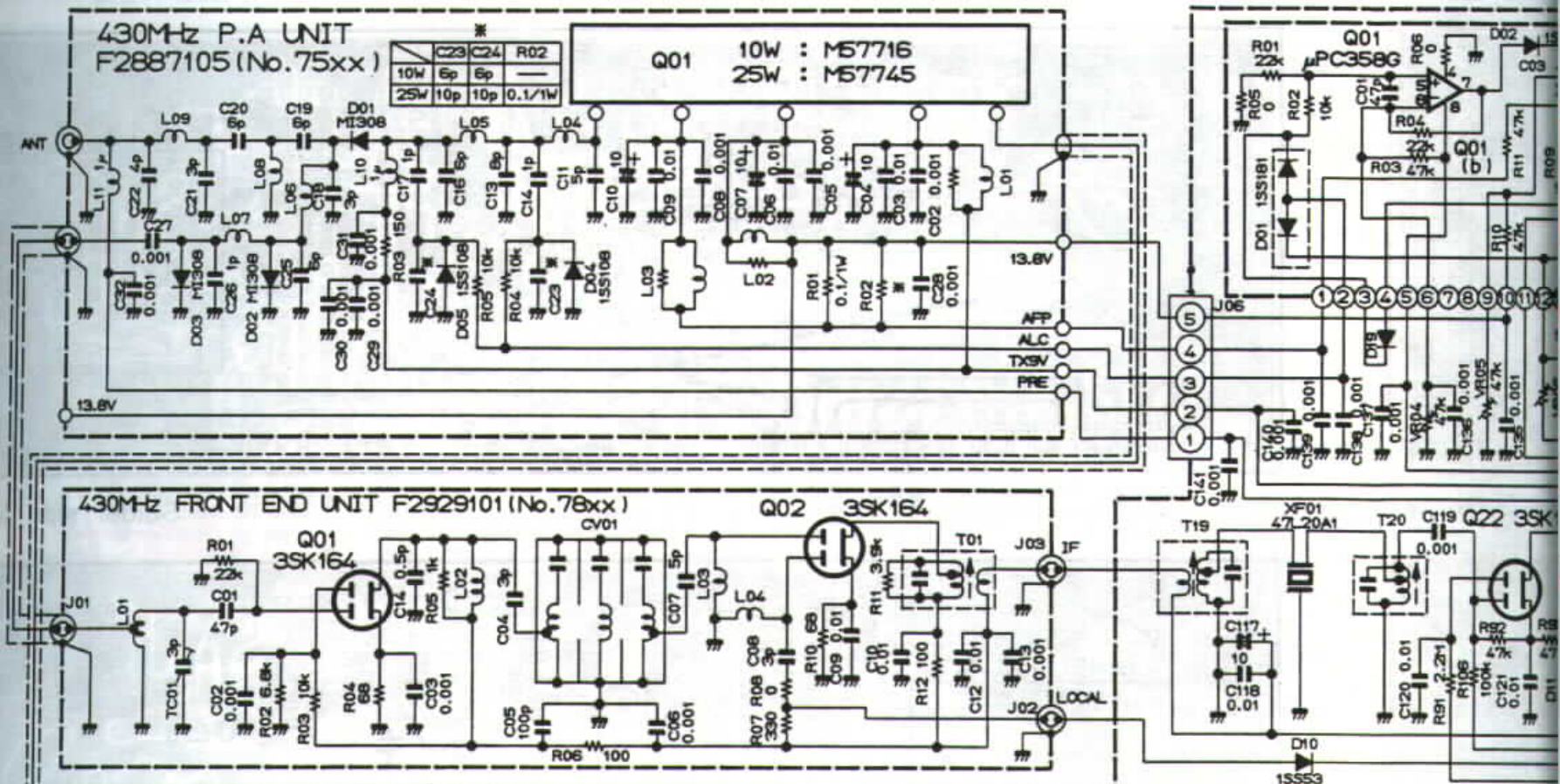
Q7015	0	0							
Q7016	0.98	0	0	0	4.78	8.80	8.80	0	

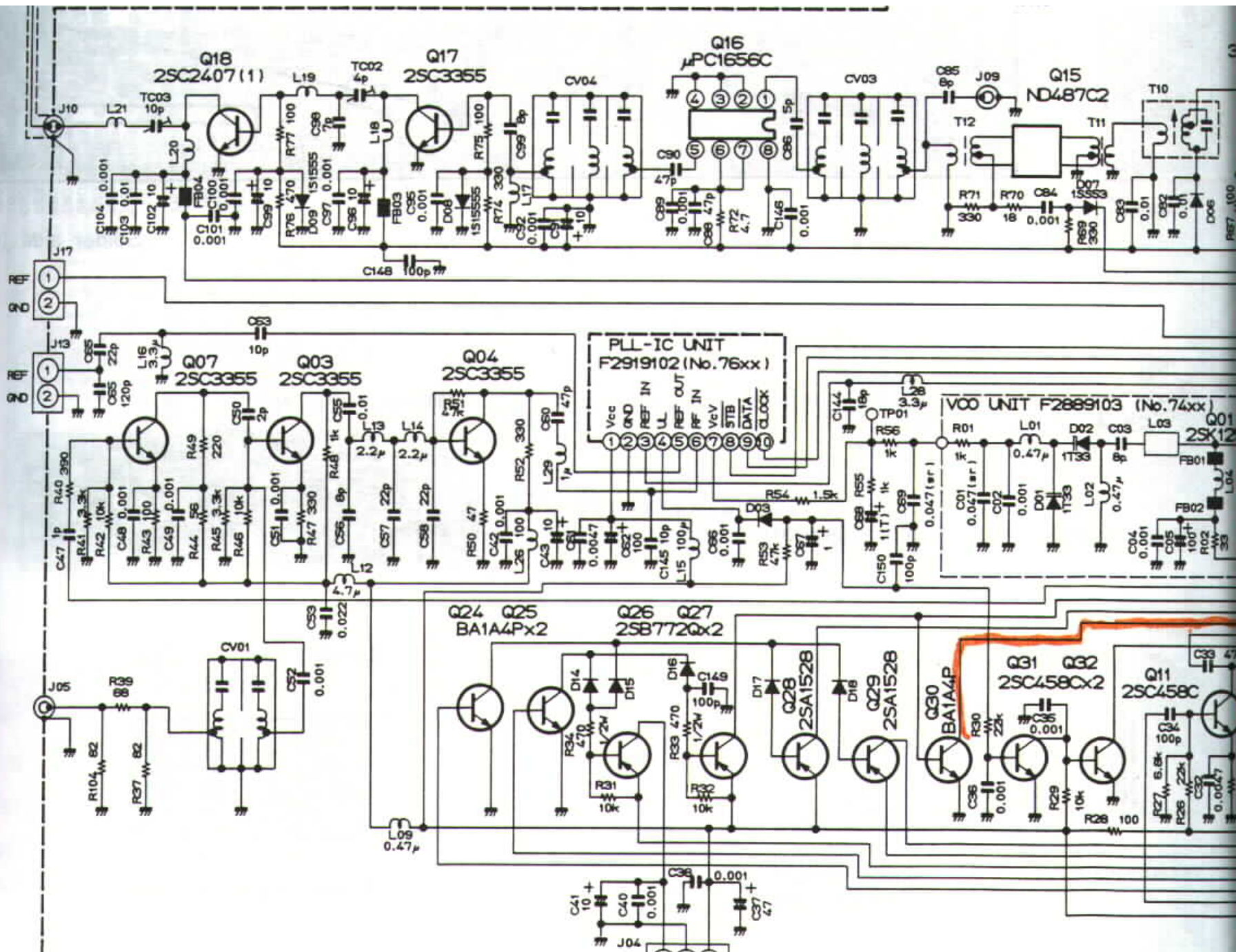


Marked surface

3SK164(F0) (Q7801,7802)

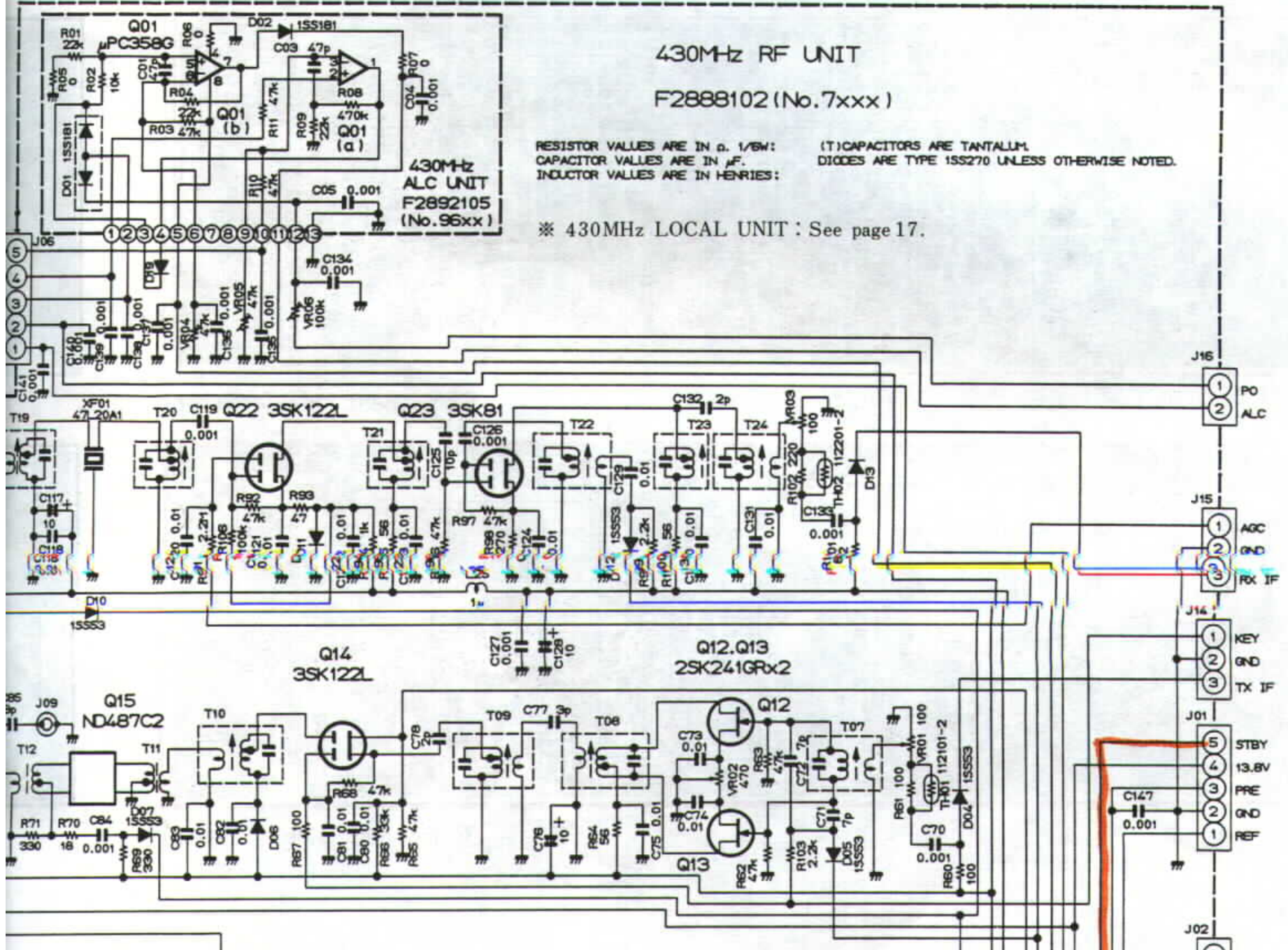
Chip





PLL-IC UNIT CIRCUIT DIAGRAM

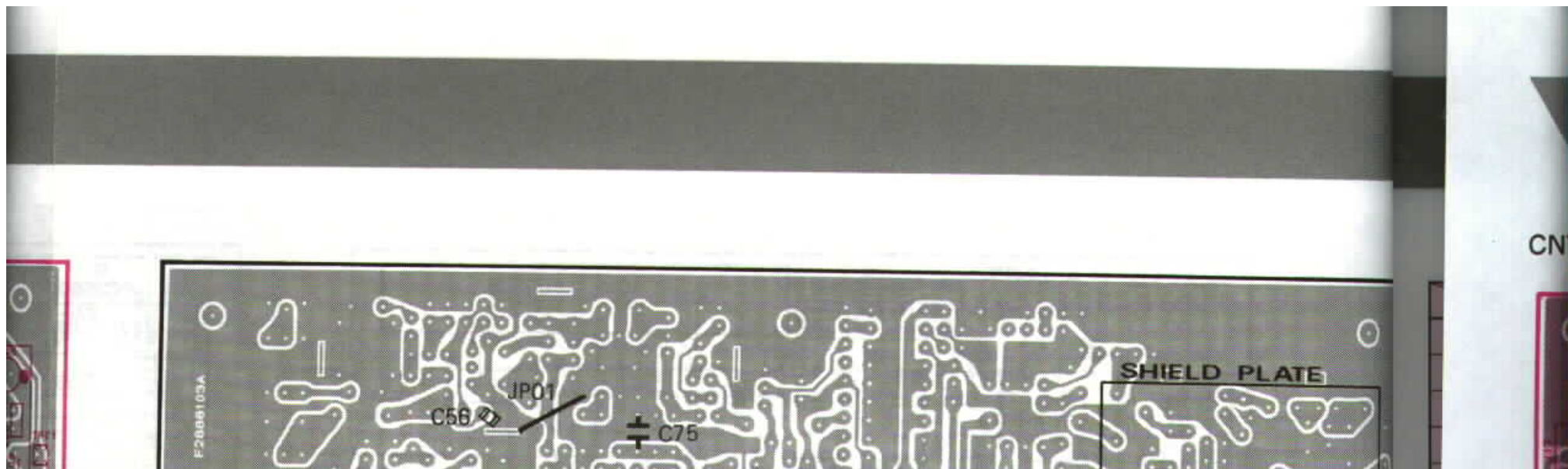
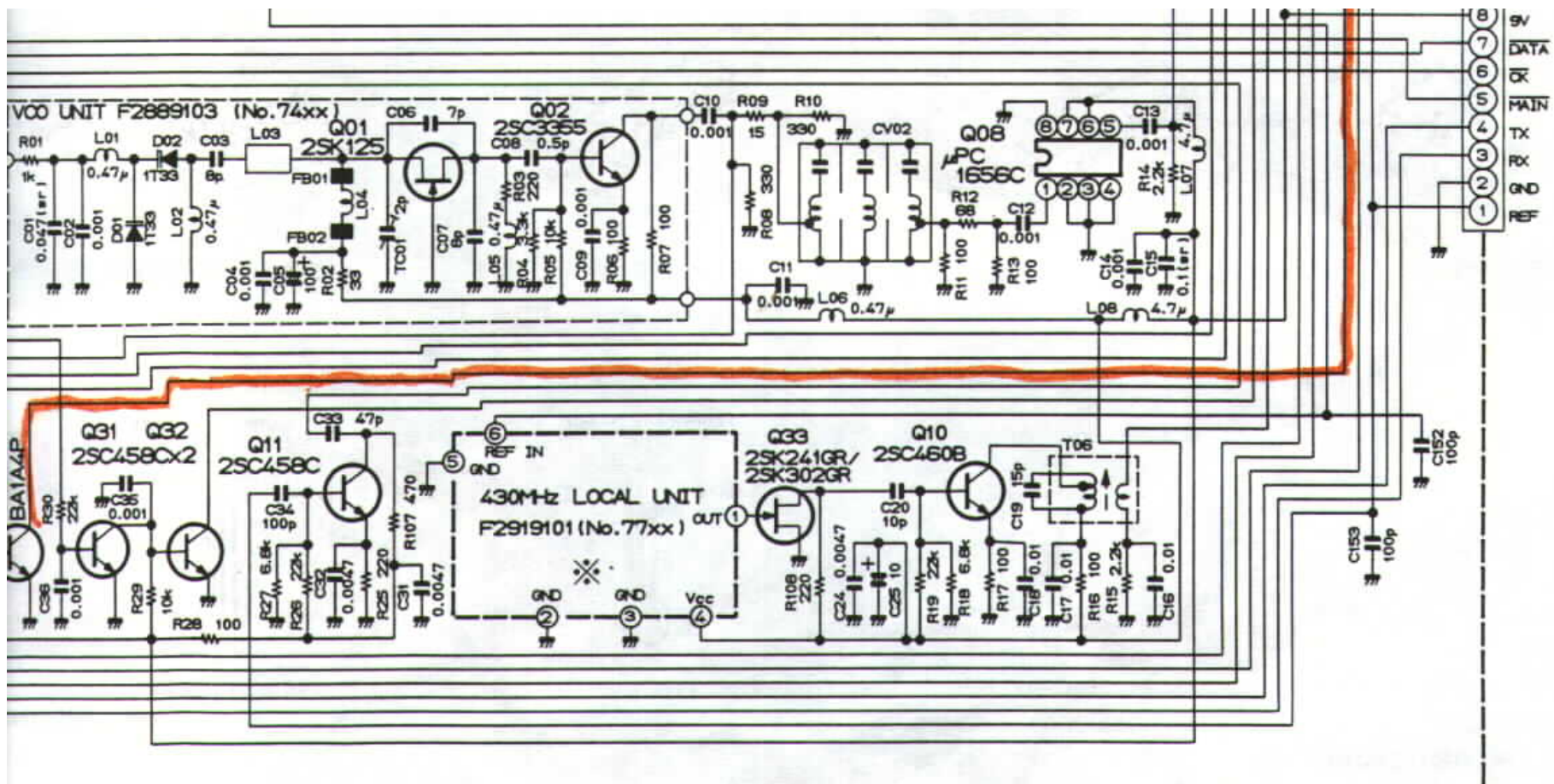
430MHz RF UNIT CIRCUIT DIAGRAM



430MHz RF UNIT
F2888102 (No.7xxx)

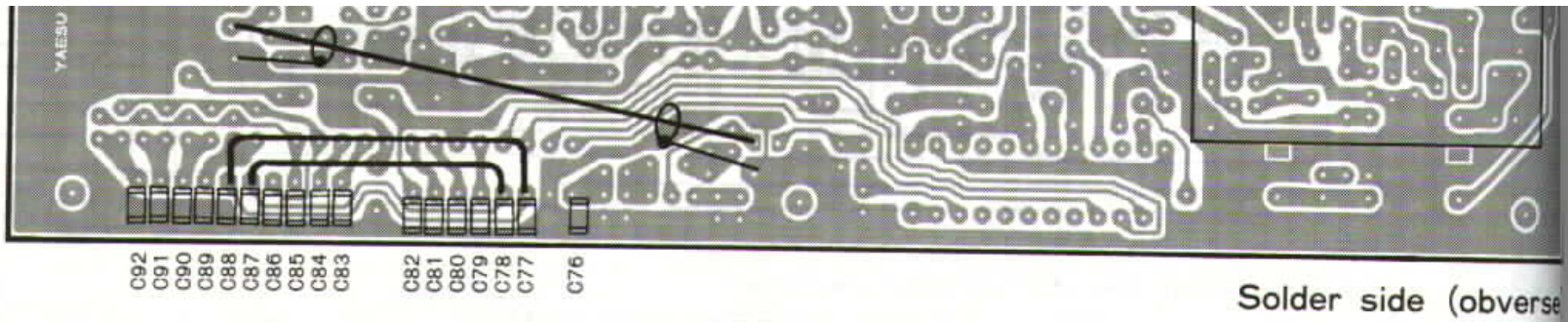
RESISTOR VALUES ARE IN Ω, 1/10W: (T) CAPACITORS ARE TANTALUM.
CAPACITOR VALUES ARE IN μF. DIODES ARE TYPE 15S270 UNLESS OTHERWISE NOTED.
INDUCTOR VALUES ARE IN HENRIES:

※ 430MHz LOCAL UNIT : See page 17.

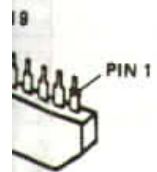
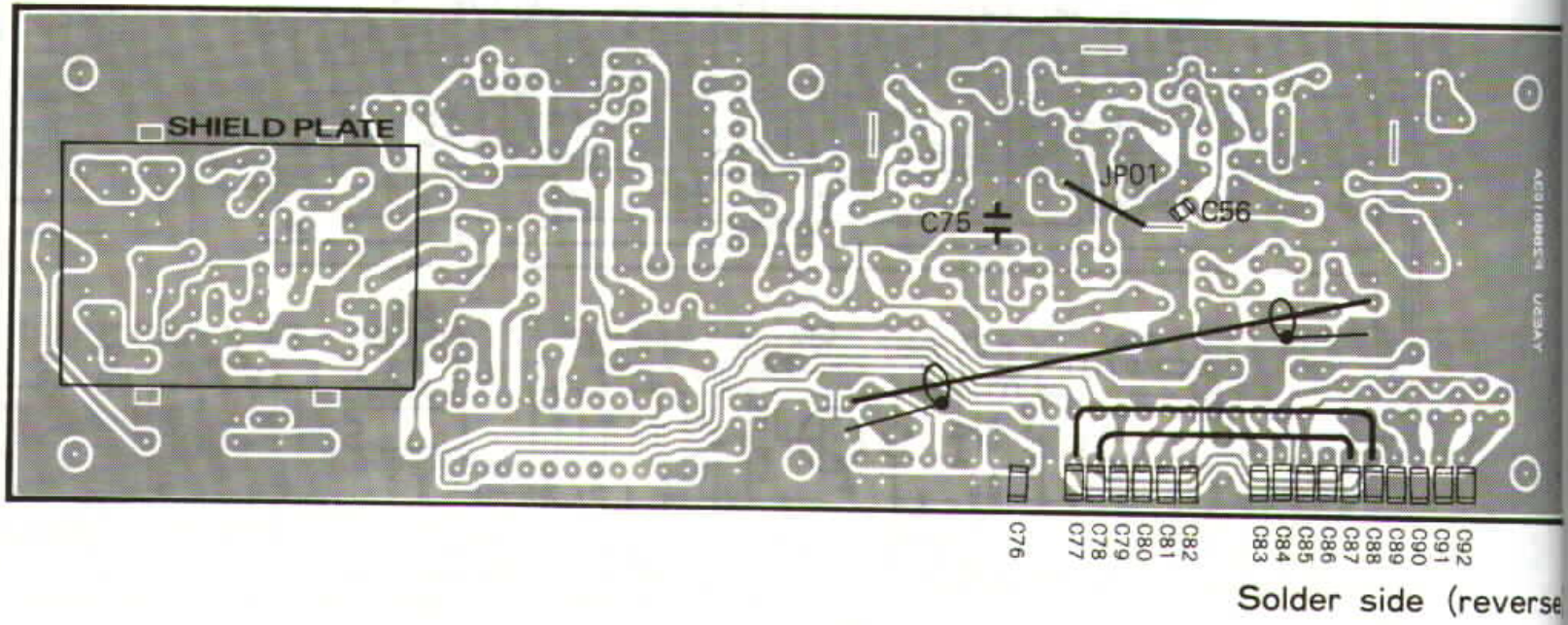




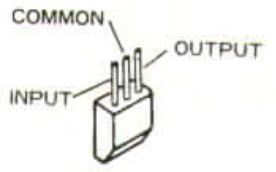
erse)



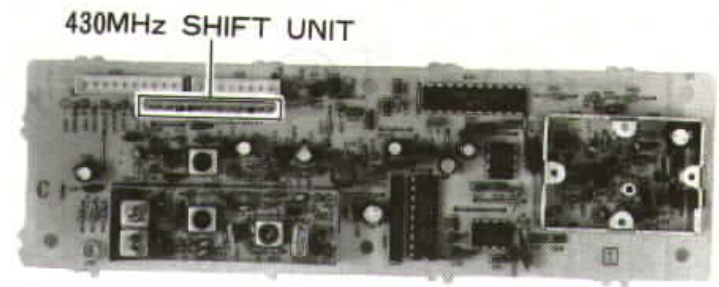
erse)



1AP(Q8008)

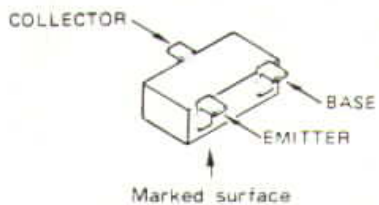


μPC78L05(Q8015)



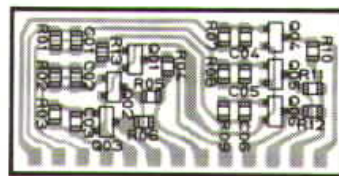


7F(Q8001)



2SC2712GR(LG)
(Q9201-9206)

430MHz SHIFT UNIT (No. 92XX)



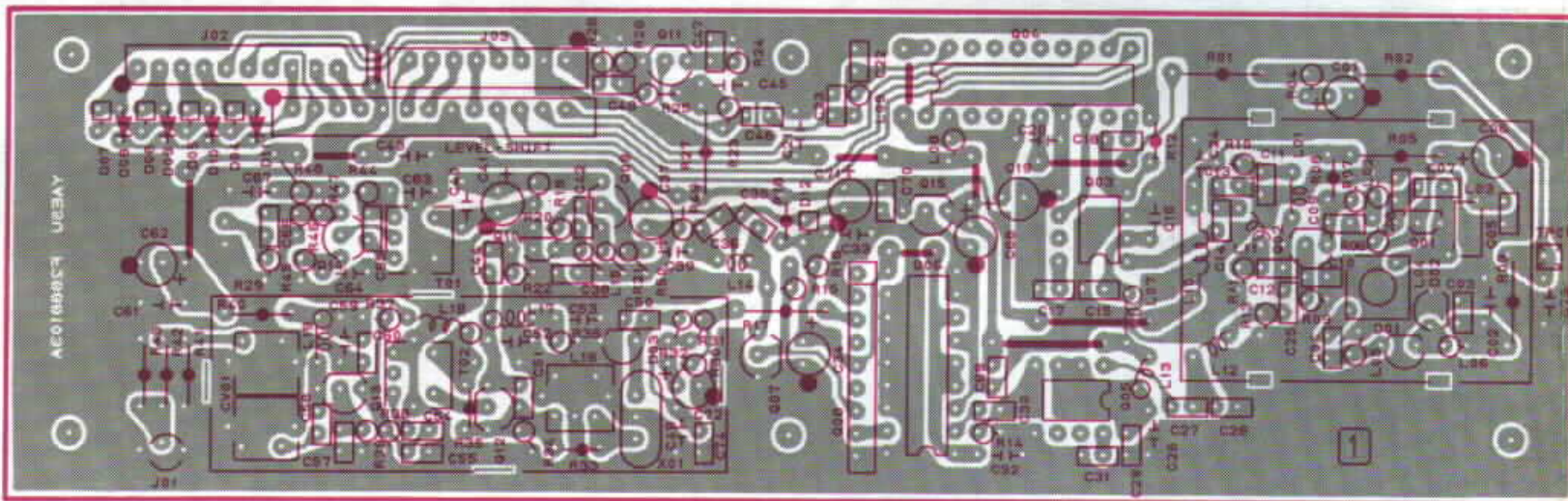
① ④ ⑦ ⑩ ⑬

Solder side (obverse)

Q1007
Q1024
Q1025
Q1029

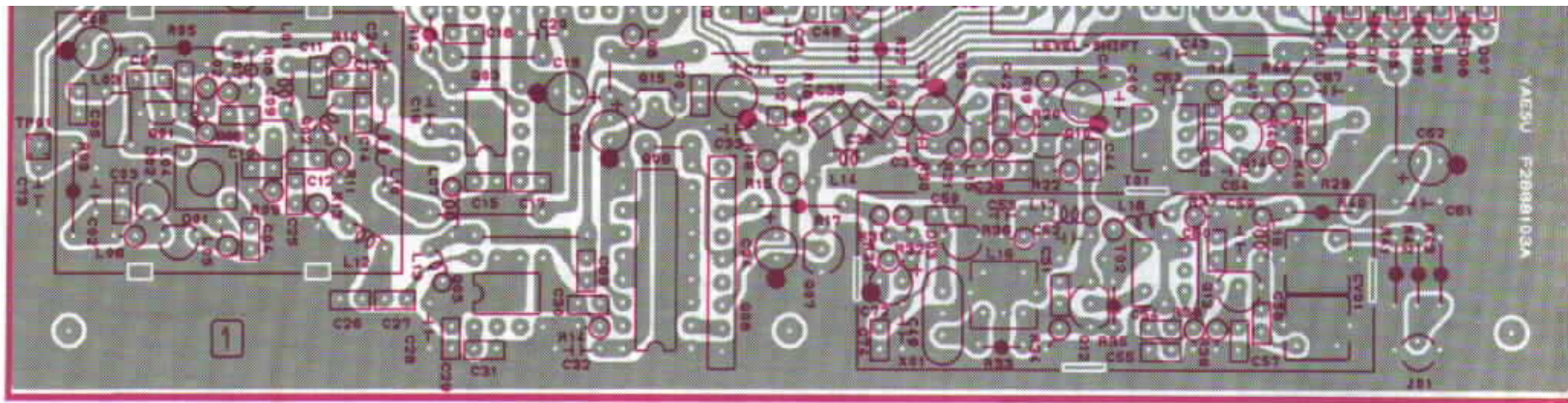
430MHz PLL UNIT PARTS LAYOUT

430MHz PLL UNIT (No. 8XXX)

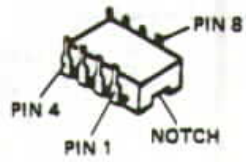


Component side (obverse)

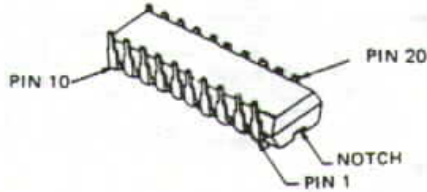




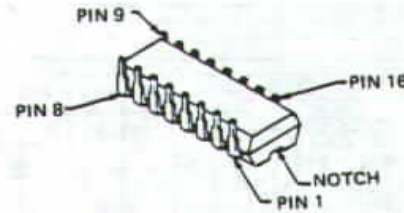
Component side (reverse)



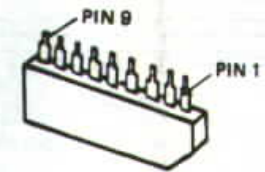
MB504(Q8003)
MB505-16(Q8005)



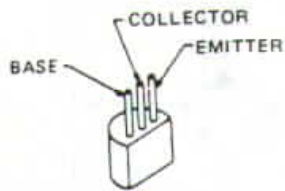
MC145156P(Q8004)



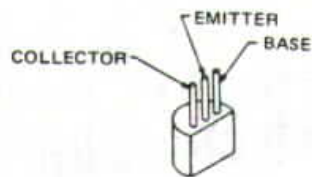
TC9122P(Q8006)



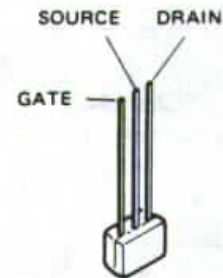
TC5081AP(Q8008)



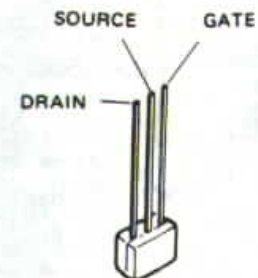
2SC458C(Q8007,8011)
2SC535B
(Q8009,8012,8014)



2SC2407A(Q8013)
2SC3355(Q8002)



2SK241GR(Q8010)



2SK507F(Q8001)

430MHz PLL UNIT VOLTAGE CHART

(DC VOLTS)

	E(S)	C(D)	(G ₁) ^B	(G ₂)	REMARKS		E(S)	C(D)	(G ₁) ^B	(G ₂)	REMARKS
Q8001	0.96	8.90	0			Q8011	1.4	7.5	2.0		
Q8002	1.2	7.7	2.0			Q8012	3.0	8.7	3.6		
Q8007	0	4.40	0.55			Q8013	0.86	8.65	1.50		
Q8009	4.75	1.00	1.70			Q8014	1.2	8.6	1.9		
Q8010	0	7.80	0.01								

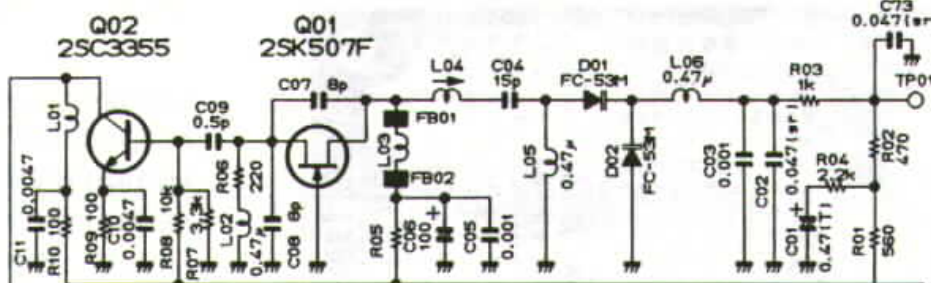
430MHz PLL UNIT IC VOLTAGE CHART

(DC VOLTS)

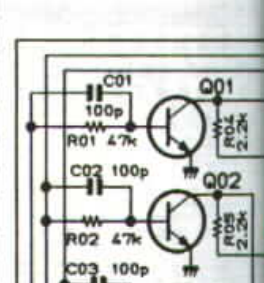
	1(IN)	2(GND)	3(OUT)	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	REMARKS
Q8003	2.5	5.1	—	2.9	0	4.6	—	2.6													
Q8004	0	5.10	—	—	5.10	5.10	0	4.45	—	2.10	0.06	0.06	0.06	—	—	—	—	—	2.25	5.10	
Q8005	2.57	5.10	5.10	2.73	0	—	—	2.52													
Q8006	7.5	2.9	—	7.5	7.5	—	7.5	—	—	7.5	—	—	—	—	—	—	0.4	0			
Q8008	—	0	7.5	—	7.5	—	4.4	0.4	0												
Q8015	9.0	0	5.0																		



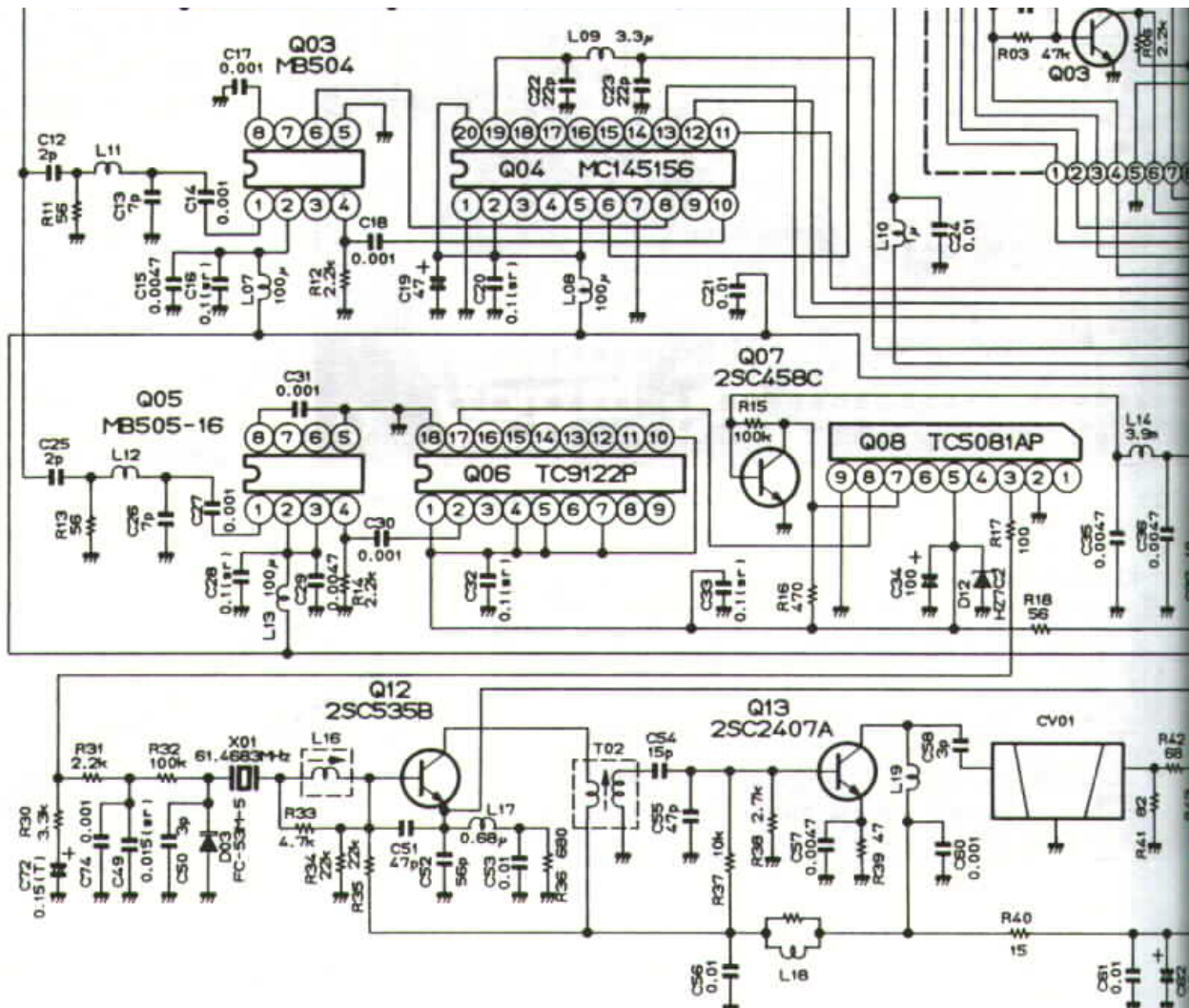
430MHz PLL UNIT F2888103 (No.8xxx)



430MHz SHIFT UNIT



(reverse)



430MHz PLL UNIT CIRCUIT DIAGRAM

430MHz LOCAL UNIT F2919101 (No. 77xx)



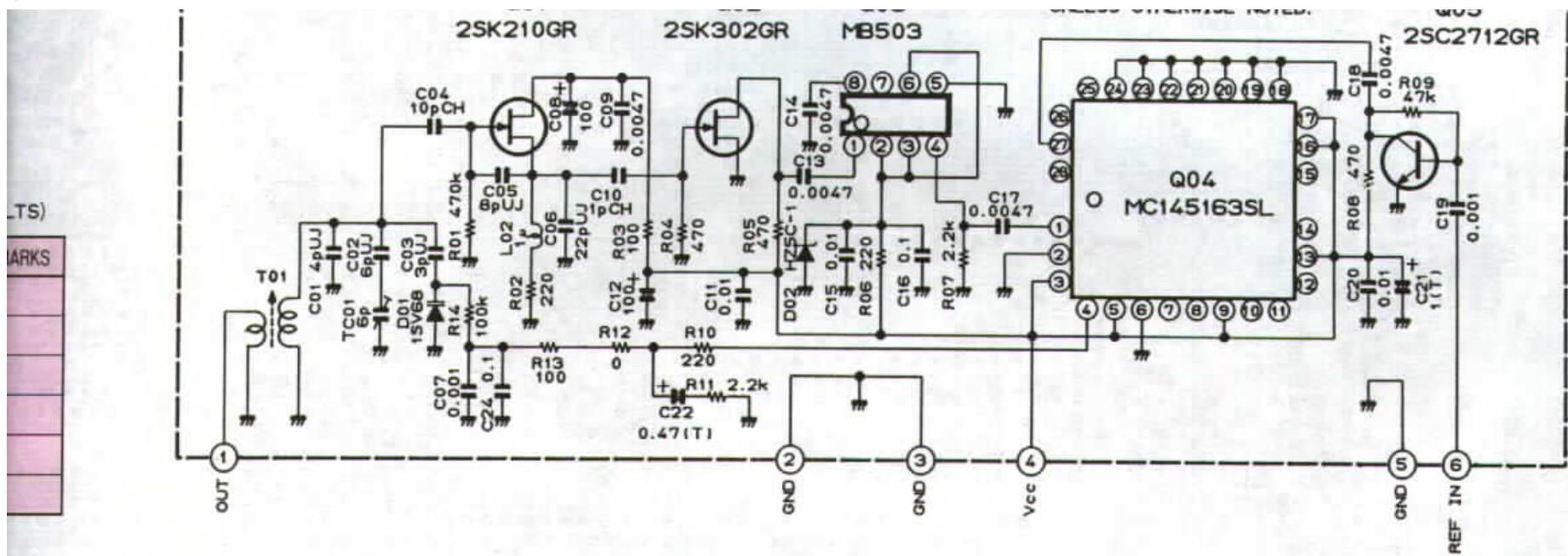
Q01

Q02

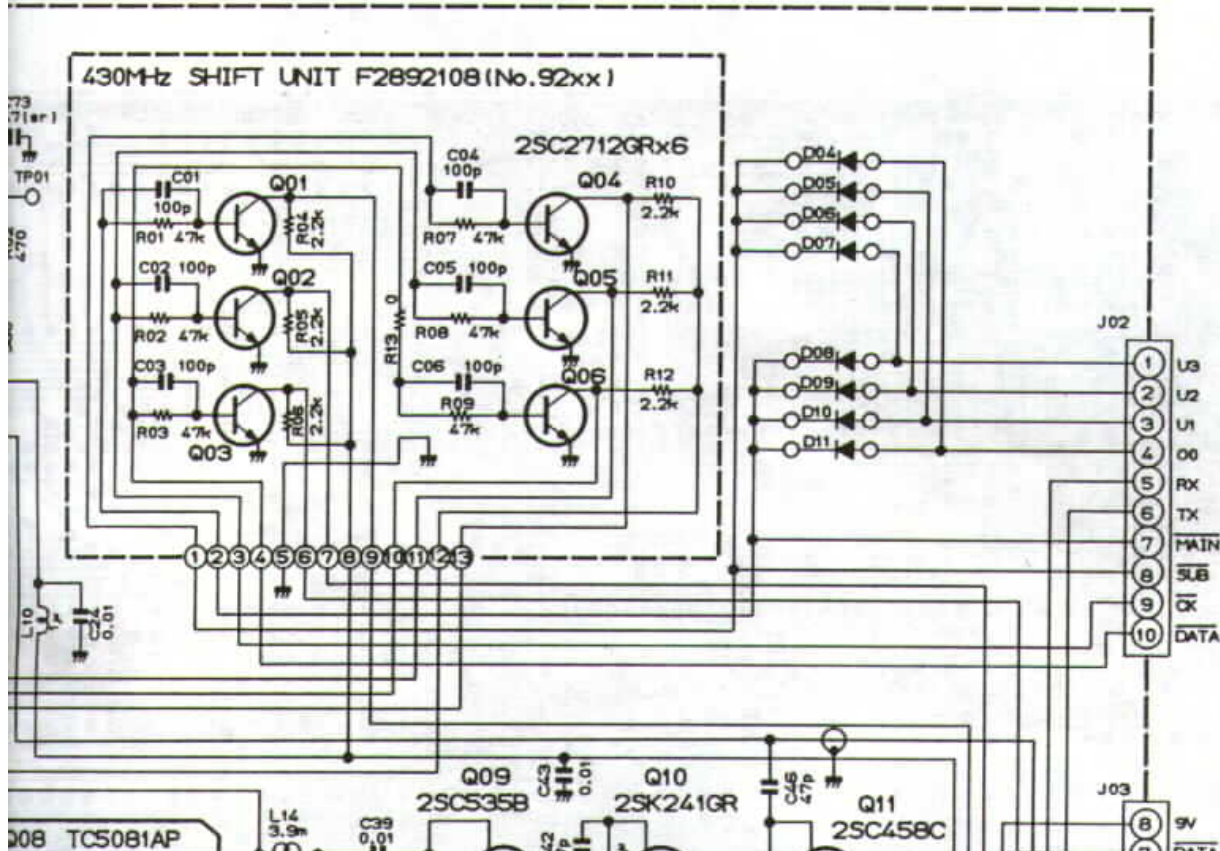
Q03

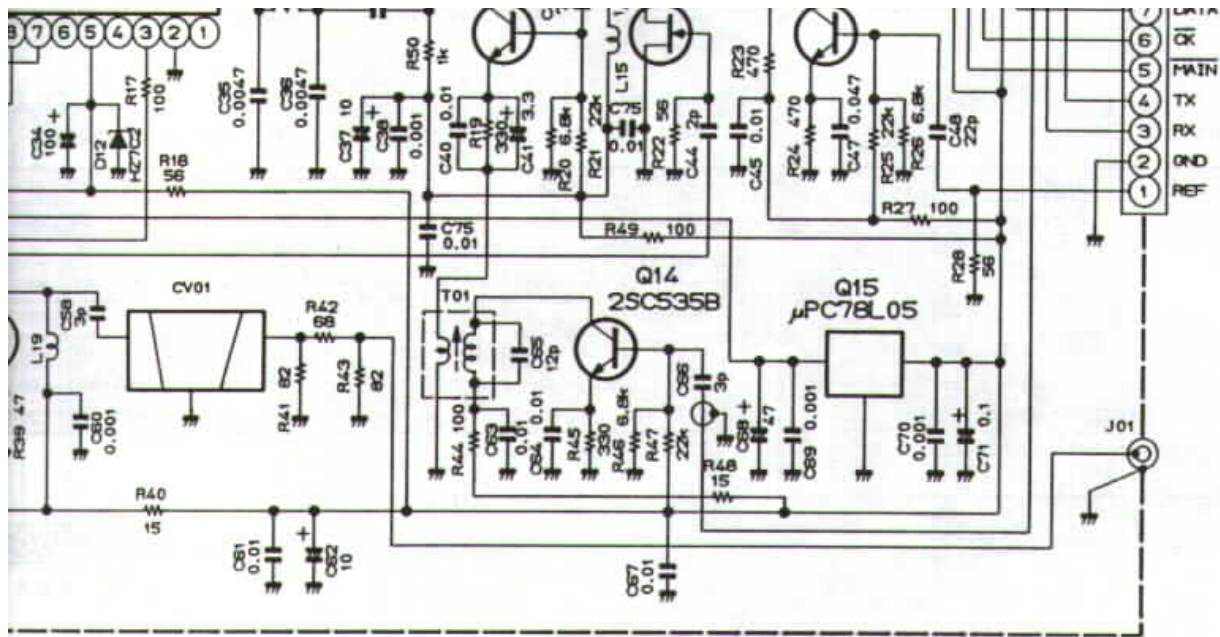
Q05

RESISTOR VALUES ARE IN Ω, 1/10W;
 CAPACITOR VALUES ARE IN μF;
 INDUCTOR VALUES ARE IN HENRIES;
 (T) CAPACITORS ARE TANTALUM,
 UNLESS OTHERWISE NOTED.

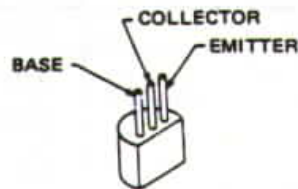
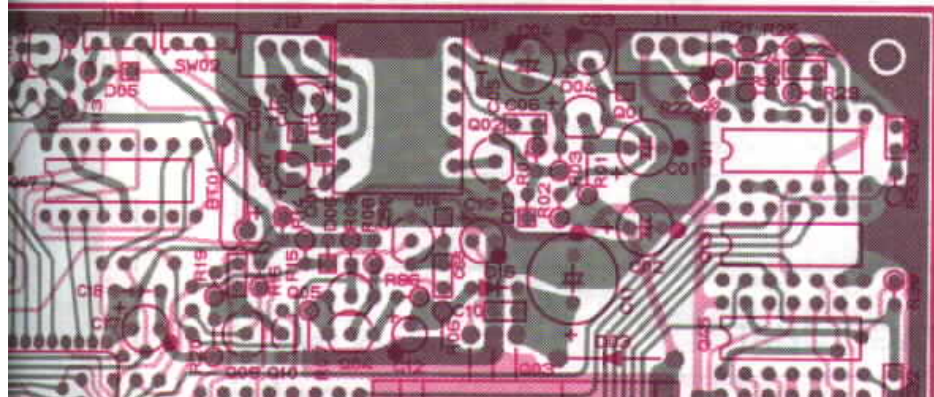


※ 430MHz LOCAL UNIT Parts Layout :
See page 13.

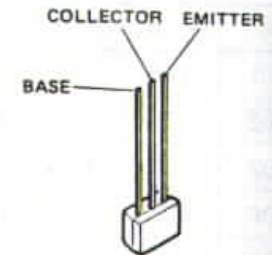




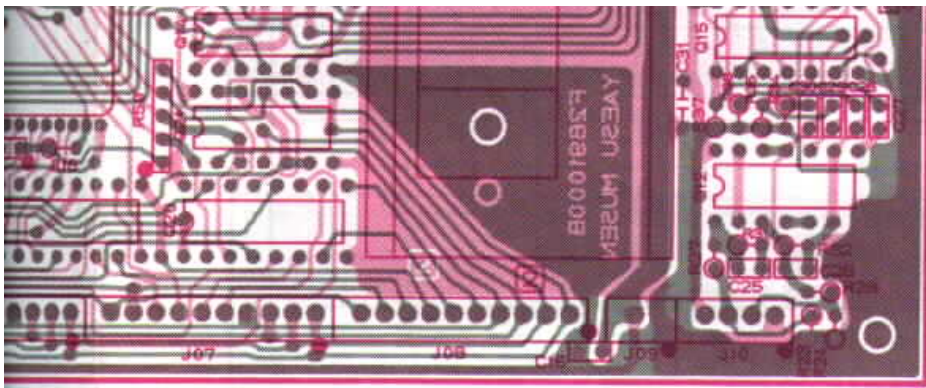
- 17 -



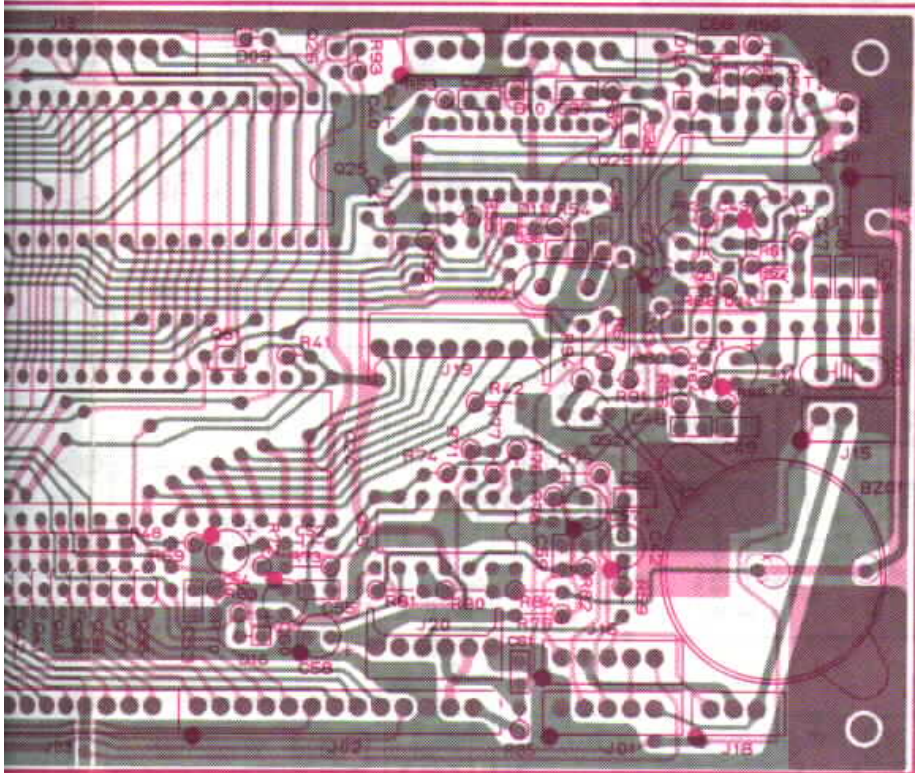
2SA733AQ(Q1046)
2SC458C
(Q1004-1006,1009)



BA1A4M(Q1049)
BA1A4P
(Q1010,1016-1018)



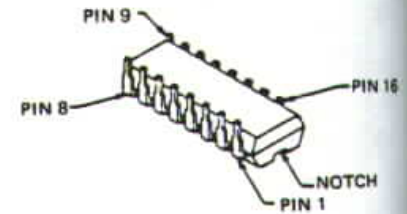
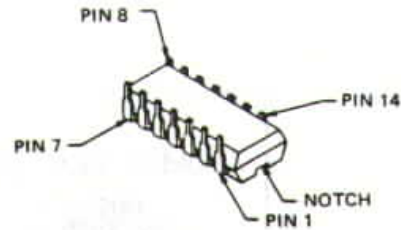
Component side (obverse)



Component side (reverse)

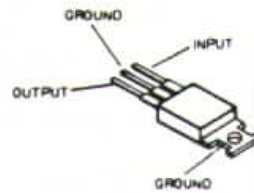
(1022,1023)
 2SC1384R(Q1002)
 2SD667C(Q1001)

(1026,1036-1044)
 BN1A4M(Q1048)
 BN1L4L(Q1051)

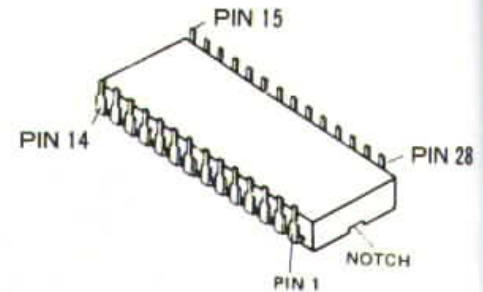


LA6324(Q1035)
 MC14001BCP(Q1030)
 MC14011BCP(Q1014)
 MC14013BCP(Q1013)
 MC14066BCP(Q1021)
 MC14069UBCP(Q1011,1012)
 MC14072BCP(Q1045)
 MC14081BCP(Q1015)

HD74HC139P(Q1047)
 MC14555BCP(Q1020)
 MC14556BCP(Q1019)
 μPD6302CA(Q1029)



μPC7805H(Q1003)

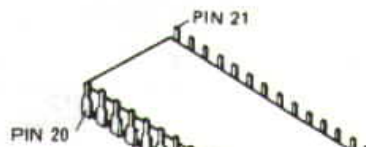


HM6264ALP-12(Q1007)

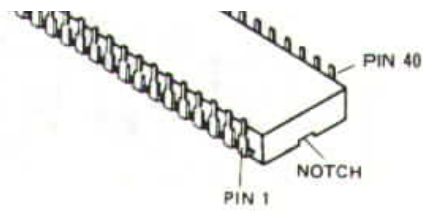
IC VOLTAGE CHART

(DC VOLTS)

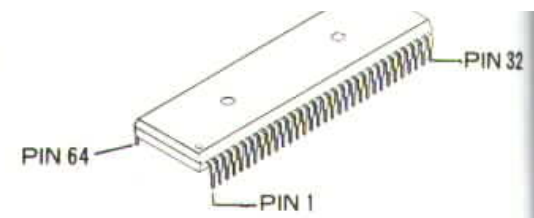
5	7	8	9	10	11	12	13	14	15	16	17	REMARKS
3	24	25	26	27	28	29	30	31	32	33	34	
0	41	42	43	44	45	46	47	48	49	50	51	
7	58	59	60	61	62	63	64					



0	4.60	5.00	3.80	0	0	5.00	0.80	0.01	0.05	5.00	5.00
0	5.00	4.70	4.70	5.00	5.00	0.02	5.00	0.05	4.60	5.00	5.00
0	5.00	0	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	0.70
0	1.60	0	4.20	4.70	5.00	3.20	2.50				



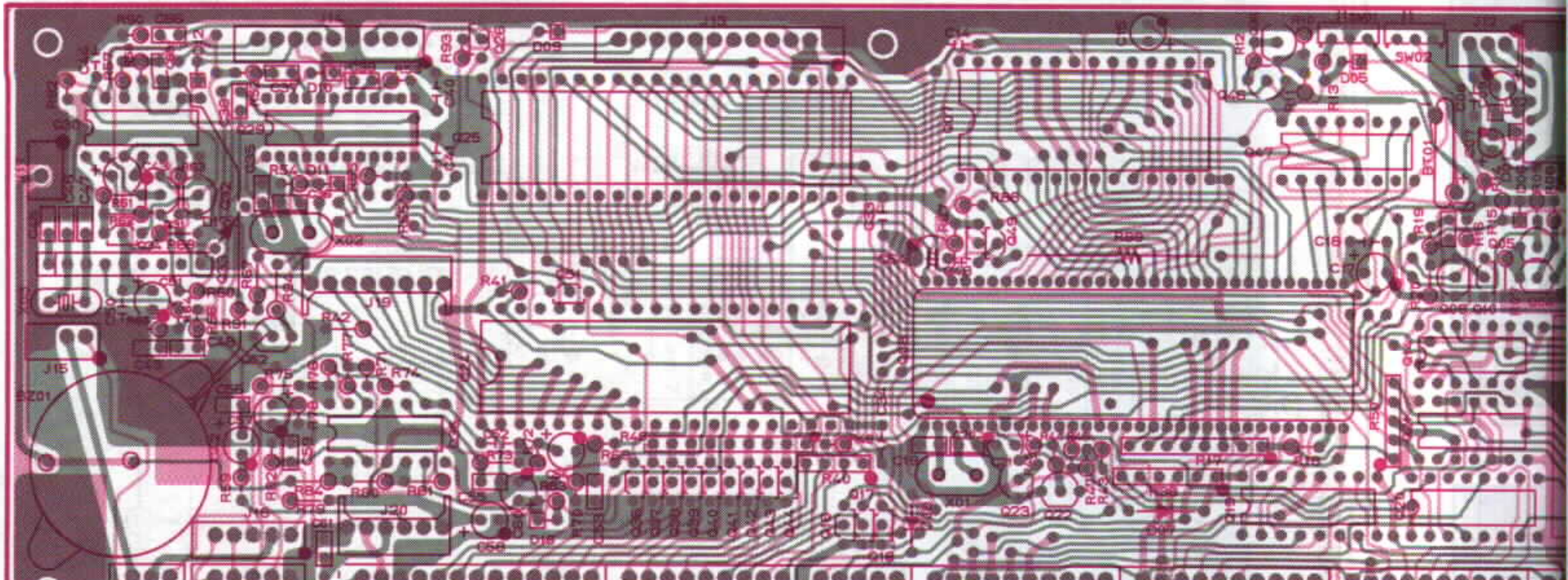
HD63A21P(Q1024,1025)

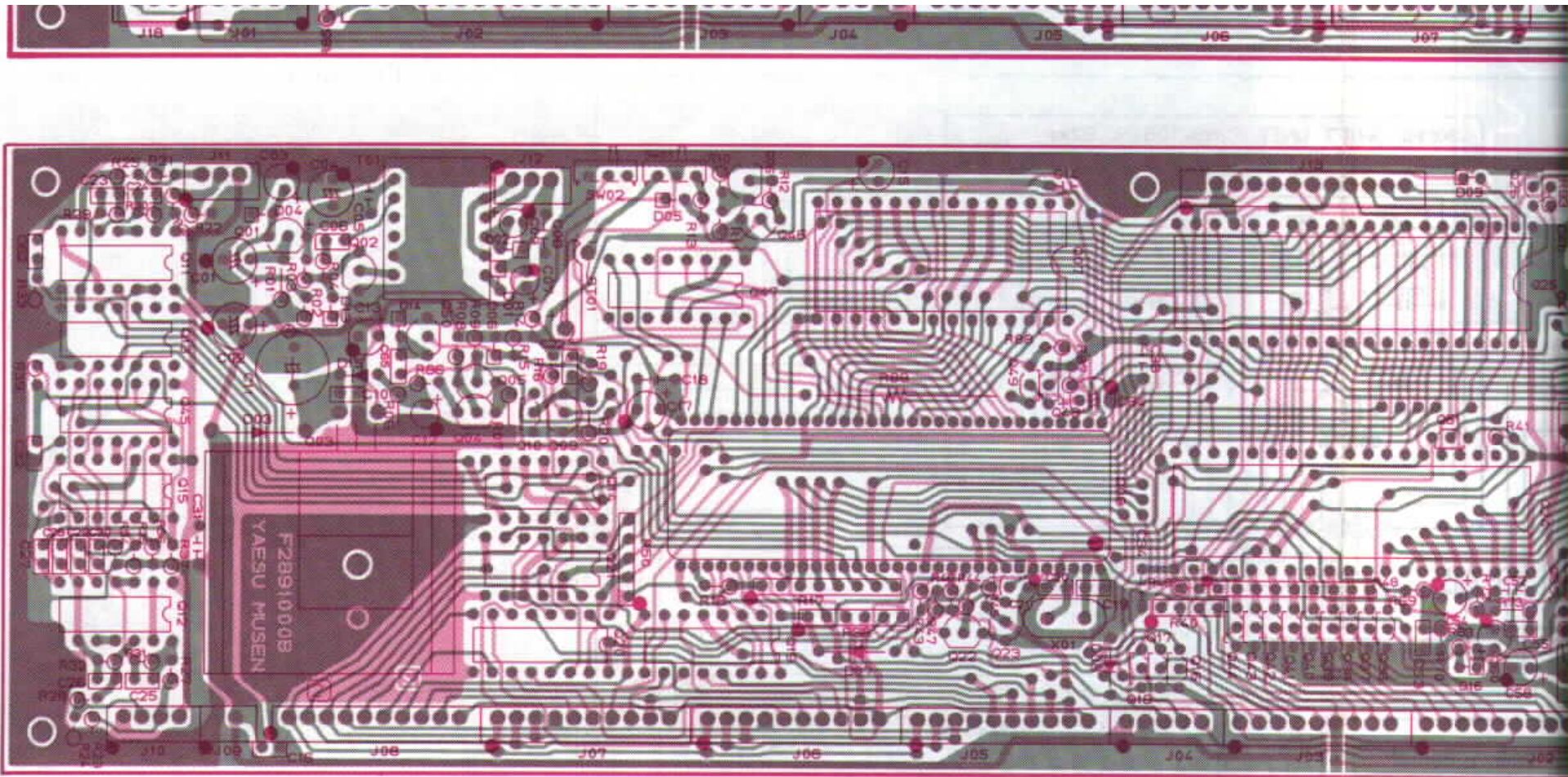


HD63A01Y0(Q1008)

CNTL UNIT PARTS LAYOUT

CNTL UNIT (No. 1XXX)





CNTL UNIT IC VOLTAGE CHART

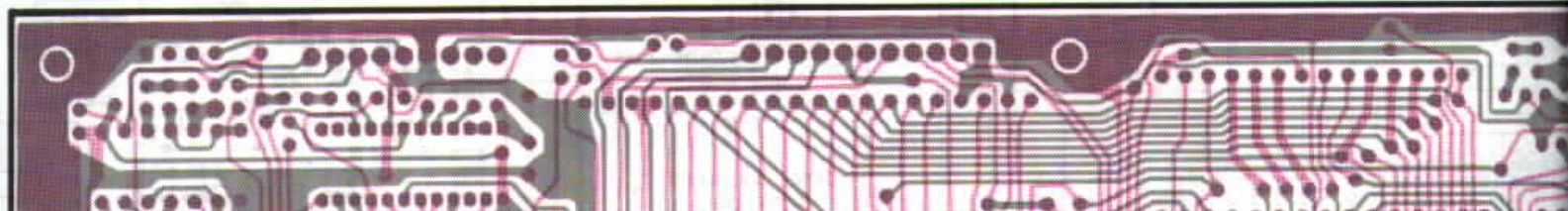
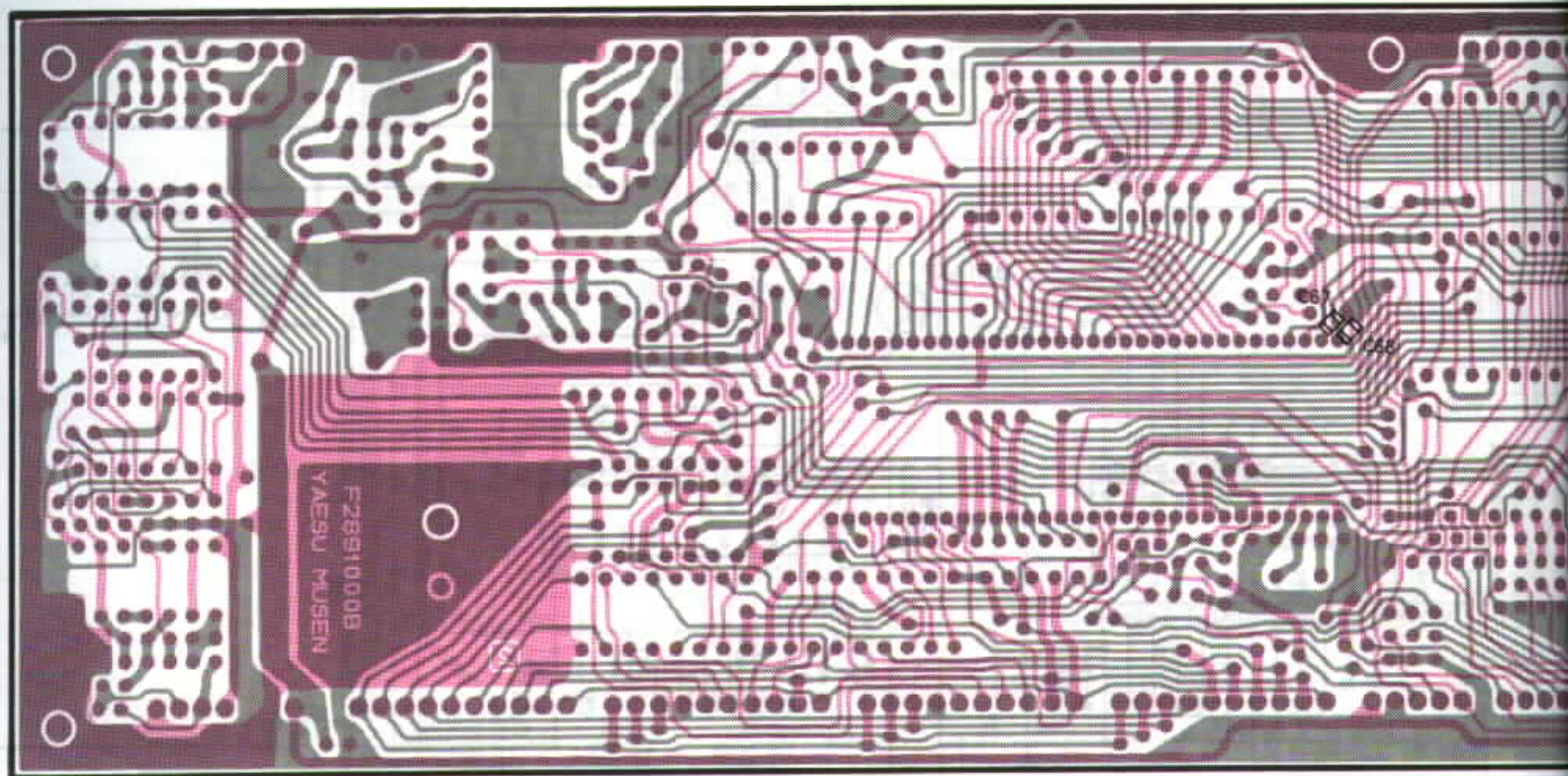
(DC VOLTS)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	REMARKS
	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	
01007	0	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	0.07	0.08	0.08	0	1.00	1.50	1.70	1.50	1.60	4.10	
	4.30	2.90	0.70	0.70	1.50	5.00	5.00	5.00													
01024	0	0	0	0	0	0	0	0	0	0	5.00	0	0	0	5.00	0	0	5.00	0.04	5.00	
	5.00	5.00	5.00	5.00	2.50	0.52	0.48	0.52	0.52	0.53	0.52	0.55	0.57	5.00	5.00	5.00	1.04	1.10	0.01	5.00	
01025	0	5.00	5.00	5.00	5.00	0	5.00	0	0	0	0	0	0	5.00	5.00	0	3.60	5.00	2.50	5.00	
	4.90	5.00	5.00	5.00	2.50	1.00	1.60	1.60	1.80	1.00	1.60	1.60	4.70	5.00	2.60	3.70	5.00	5.00	0.05	0	
01029	2.50	2.5	0	0.30	2.50	0	0	2.50	5.00	2.50	3.30	5.00	2.50	2.50	2.50	2.50	2.50	2.50	2.50	0	
	2.50	2.50	2.50	0.48																	

CNTL UNIT IC VOLTAGE CHART

	1	2	3	4	5	6	7	8	9	10	11	12	13	REMARKS
	18	19	20	21	22	23	24	25	26	27	28	29	30	
01008	35	36	37	38	39	40	41	42	43	44	45	46	47	
	52	53	54	55	56	57	58	59	60	61	62	63	64	
01008	0	2.00	2.00	0	5.00	5.00	4.60	5.00	3.80	0	0	5.00	0.80	
	0.02	0.03	0.03	5.00	5.00	4.30	5.00	4.70	4.70	5.00	5.00	0.02	5.00	
	5.00	0	5.00	5.00	5.00	5.00	5.00	0	5.00	5.00	5.00	5.00	5.00	
	0.70	1.50	1.80	0.90	1.50	1.60	1.60	0	4.20	4.70	5.00	3.20	2.50	

※ In the initialize state.



18)
44)

PIN 16

NOTCH

17)

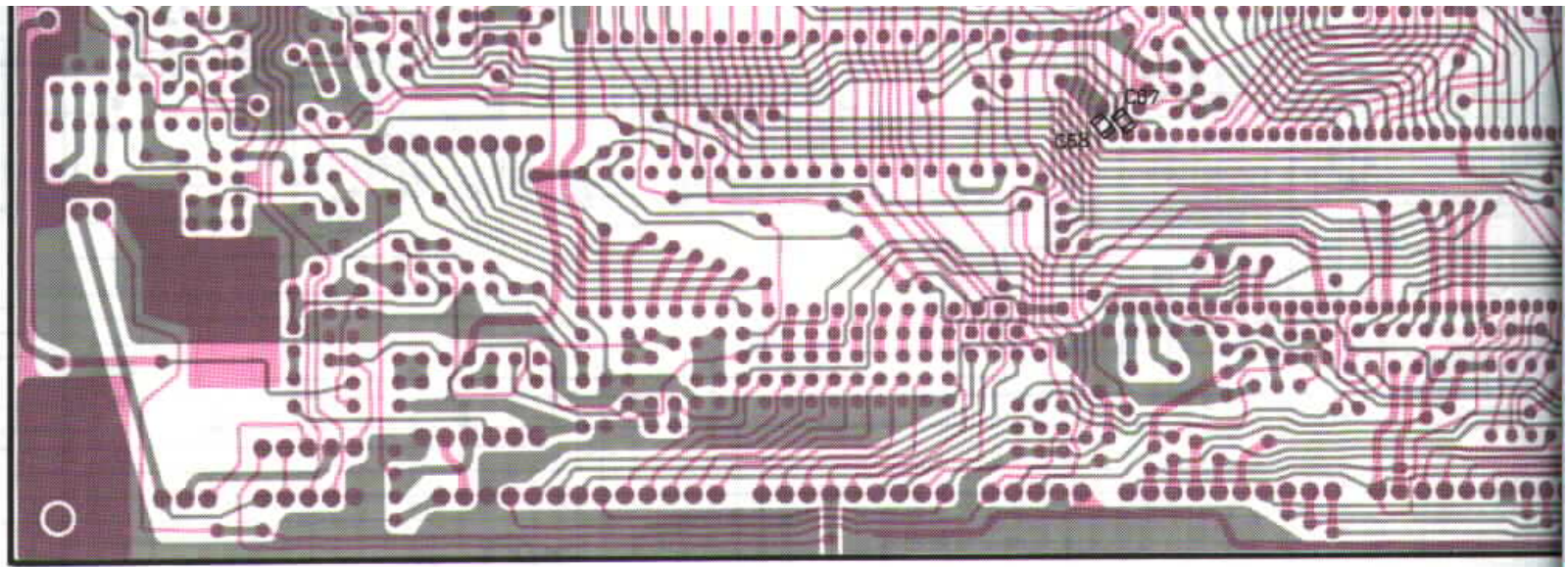
20)
19)
)

PIN 28

H

07)

PIN 32



CNTL UNIT VOLTAGE CHART

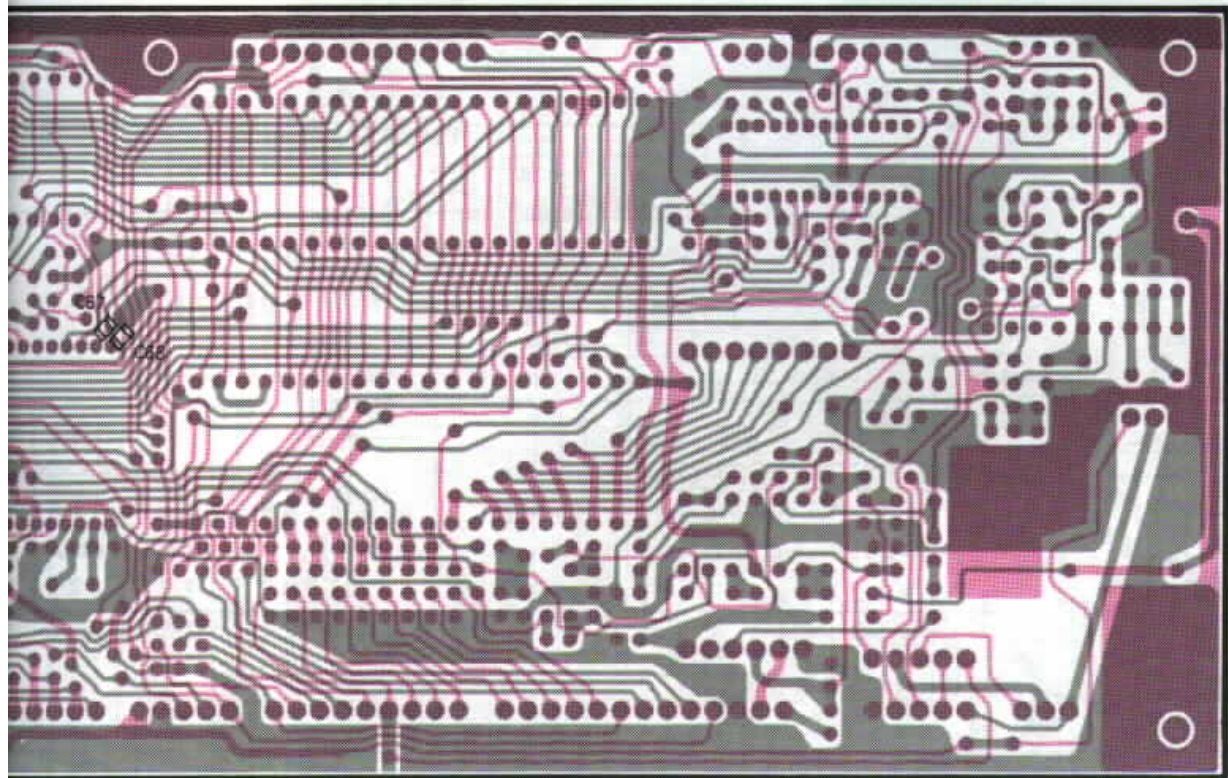
(DC VOLTS)

	E (S)	C (D)	(G ₁) ^B	(G ₂)	REMARKS		E (S)	C (D)	(G ₁) ^B	(G ₂)	REMARKS
Q1001	12.3	13.2	13.0			Q1034	5.00	0.14	5.00		
Q1002	0	12.2	-0.7			Q1036	0	0.02	0.02		
Q1004	0.20	0.21	0.90			Q1037	0	8.00	0.02		
Q1005	0.20	4.60	0.21			Q1038	0	0.01	5.00		
Q1006	0	0.06	0.66			Q1039	0	0.10	0.03		
Q1009	0	5.0	0			Q1040	0	8.00	0.03		
Q1010	0	0	0.03			Q1041	0	4.80	0.04		
Q1016	0	0.70	0.06			Q1042	0	0.02	5.00		
Q1017	0	0.01	4.60			Q1043	0	7.90	0.03		
Q1018	0	0.03	4.60			Q1044	0	7.90	0.03		
Q1022	0	0.77	0.05			Q1046	5.0	5.0	4.4		
Q1023	0	5.00	0.77			Q1048	5.00	5.00	0.02		
Q1026	0.04	12.70	0			Q1049	0	0.02	1.60		
Q1031	0	5.00	0.01			Q1051	5.0	0.1	4.6		
Q1032	0	5.0	0								

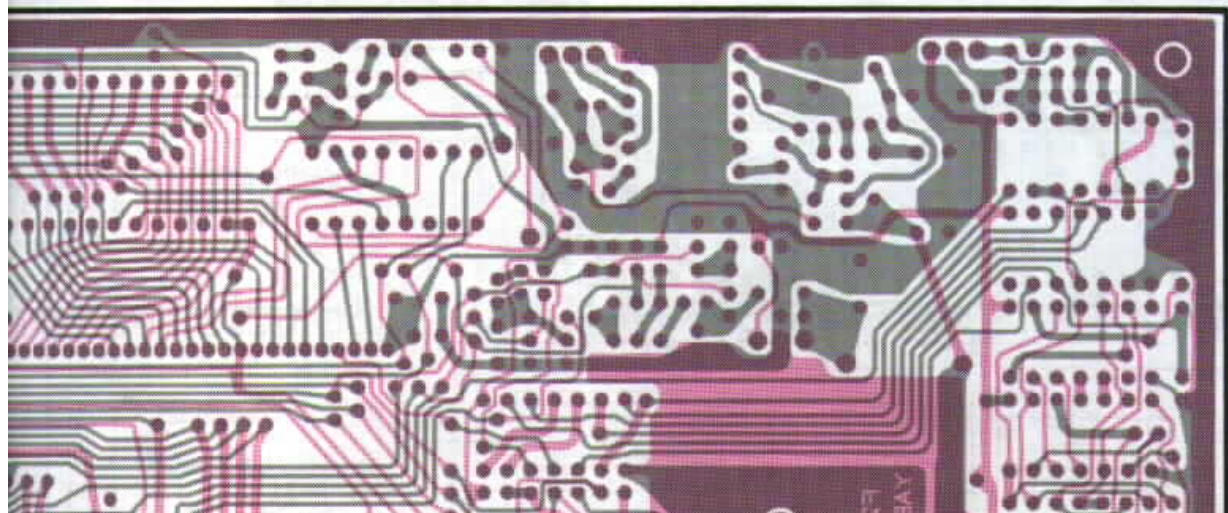
CNTL UNIT IC VOLTAGE CHART

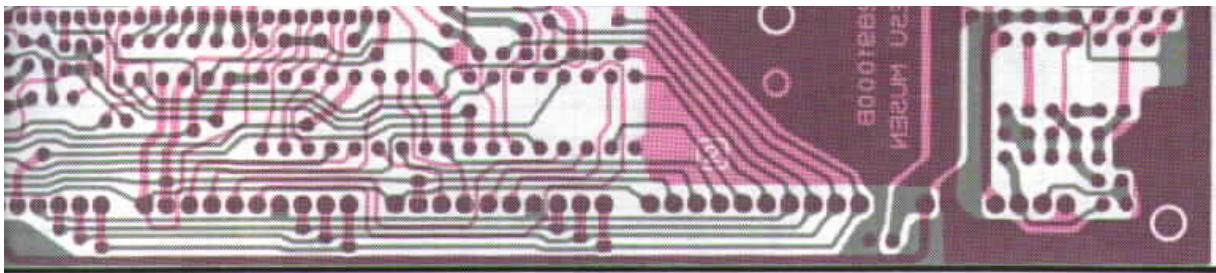
	1(IN)	2(UND)	3(OUT)	4	5	6	7	8	9	10	11	12	13
Q1003	13.0	0	5.0										
Q1011	L	H	H	L	H	L	0	H	L	L	H	H	L
Q1012	L	H	L	H	H	L	0	L	H	H	L	L	H
Q1013	H	L	L	L	L	L	0	L	L	H	L	H	L
Q1014	H	H	L	L	H	H	0	L	L	H	H	H	L
Q1015	L	L	L	L	L	L	0	L	L	L	L	H	L
Q1019	H	L	H	H	H	H	0	H	H	H	H	H	H
Q1020	H	L	H	L	L	L	0	L	H	L	L	L	H
Q1021	L	L	H	L	L	L	0	L	L	L	H	L	L
Q1030	L	L	H	L	L	H	0	L	L	H	L	L	H
Q1033	0	0.02	0.06	0	0.14	0.10	0.13	0					
Q1035	0	0	0	5.00	0.69	0.01	3.90	2.51	2.51	2.45	0	2.50	2.43
Q1045	L	L	L	L	L	L	0	L	L	L	L	L	L
Q1047	L	H	H	H	H	H	L	0	H	H	H	H	H

CNTL UNIT PARTS LAYOUT



Chip side (obverse)





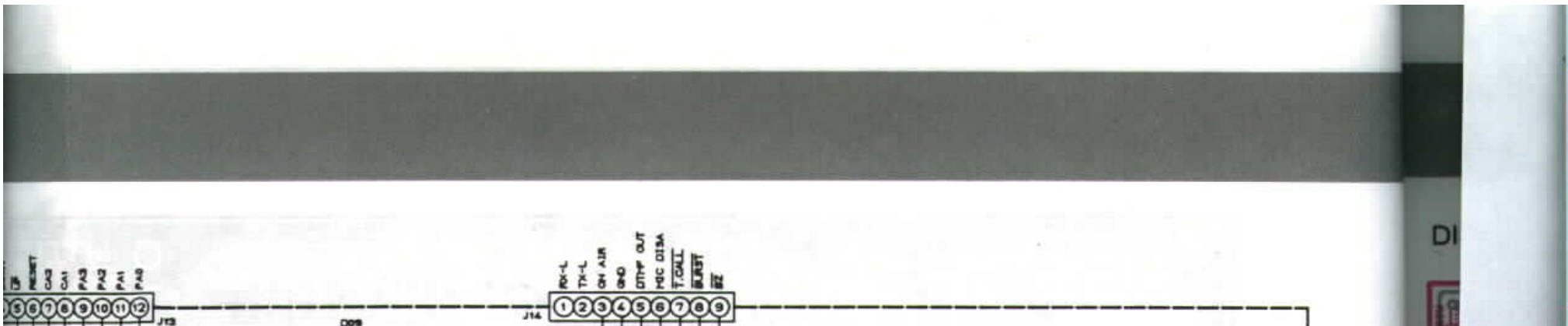
Chip side (reverse)

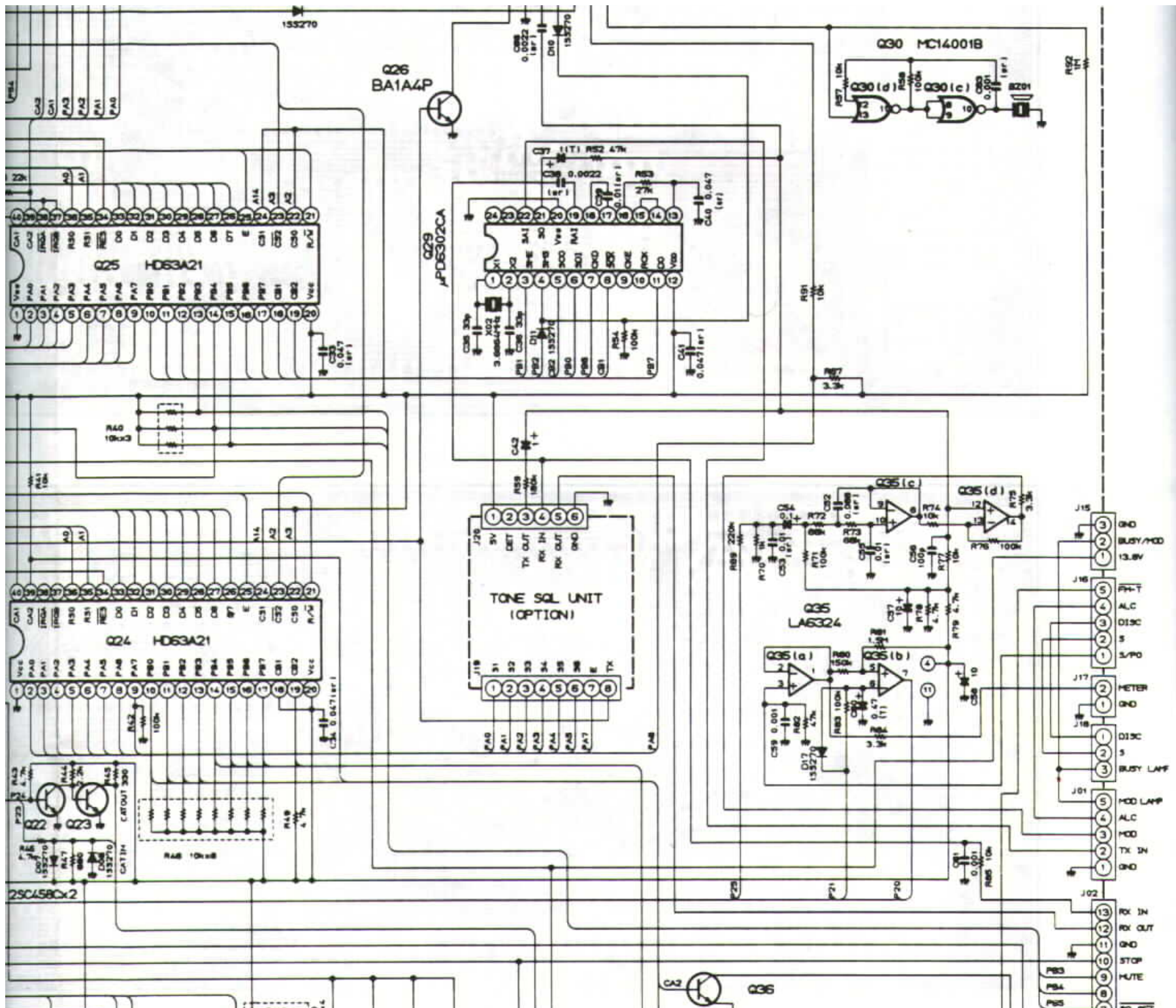
NTL UNIT IC VOLTAGE CHART

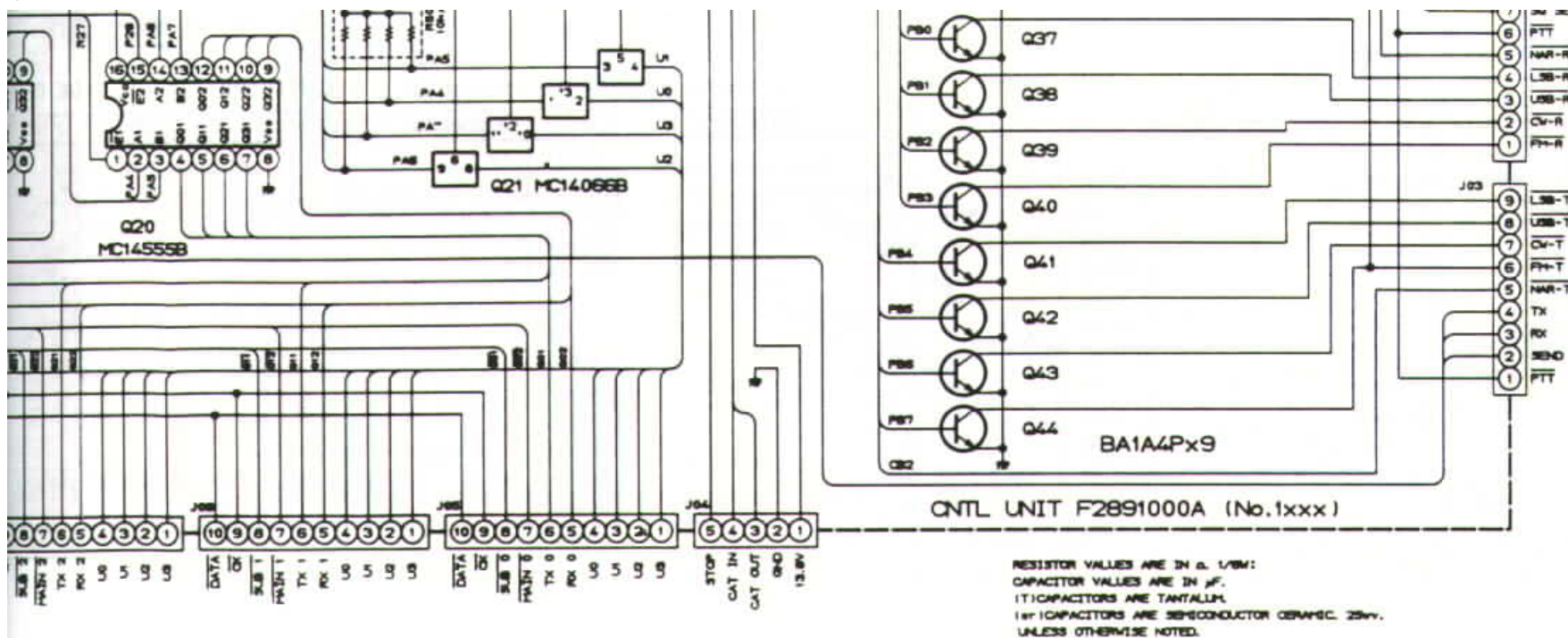
(DC VOLTS)

6	7	8	9	10	11	12	13	14	15	16	17	18	REMARKS
													H ≠ 5.0
L	0	H	L	L	H	H	L	5.0					L ≠ 0
L	0	L	H	H	L	L	H	5.0					
L	0	L	L	H	L	H	L	5.0					
H	0	L	L	H	H	H	L	5.0					
L	0	L	L	L	L	H	L	5.0					
H	H	0	H	H	H	H	H	L	H	5.0			
L	L	0	L	H	L	L	H	L	L	5.0			
L	0	L	L	L	H	L	L	5.0					
H	0	L	L	H	L	L	H	5.0					
10	0.13	0											
01	3.90	2.51	2.51	2.45	0	2.50	2.43	2.46					
L	0	L	L	L	L	L	L	5.0					
H	L	0	H	H	H	H	H	H	H	5.0			

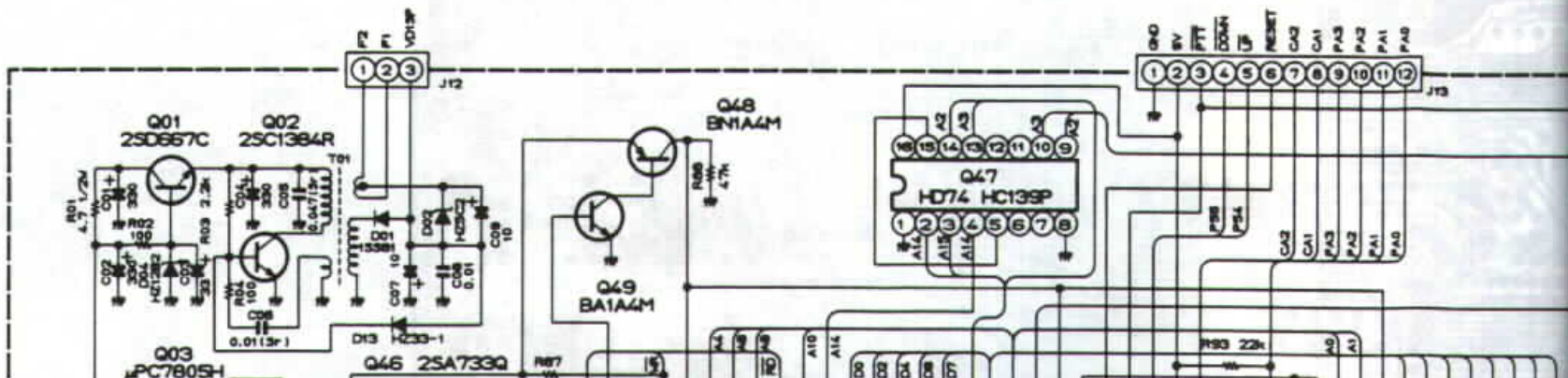
※ In the initialize state.

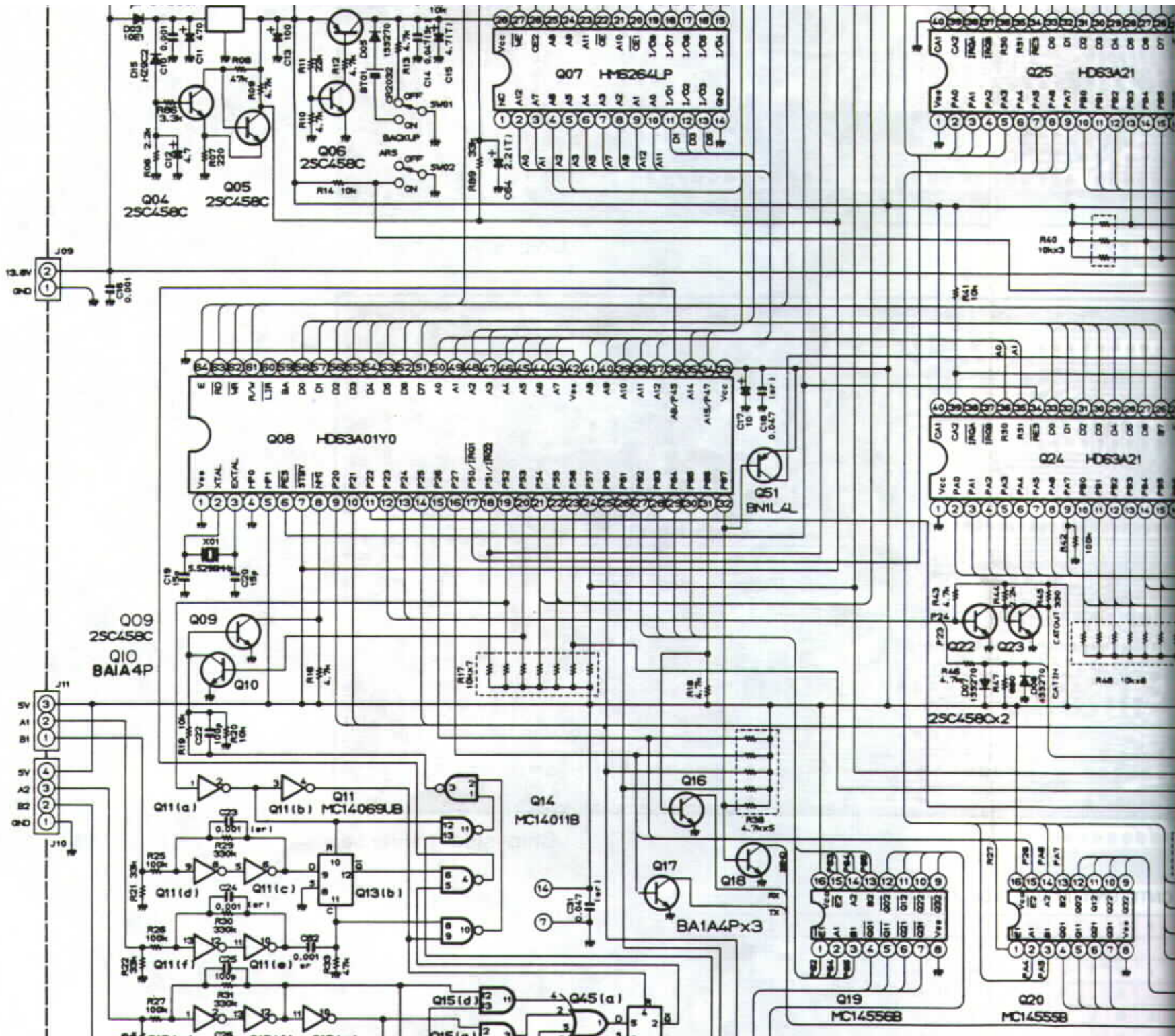


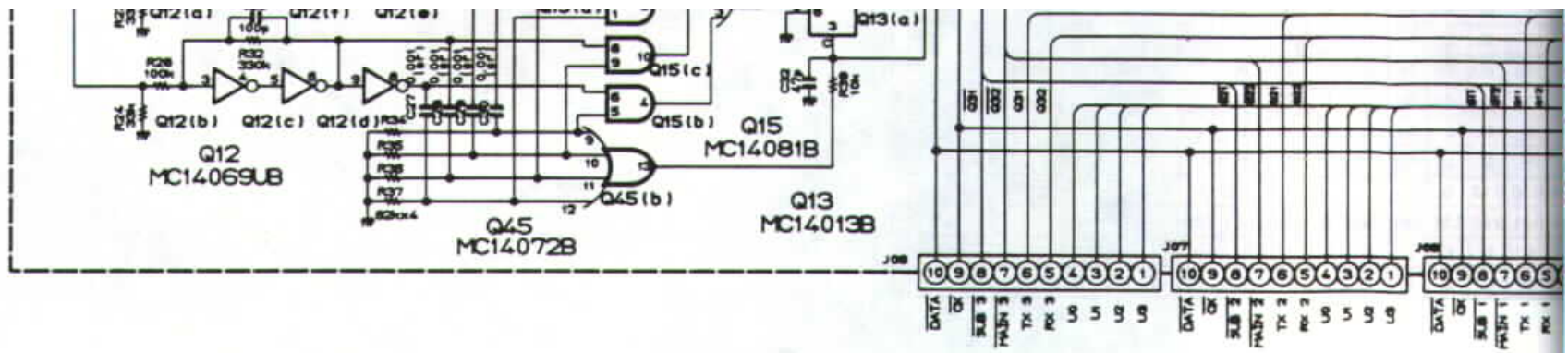




CNTL UNIT CIRCUIT DIAGRAM

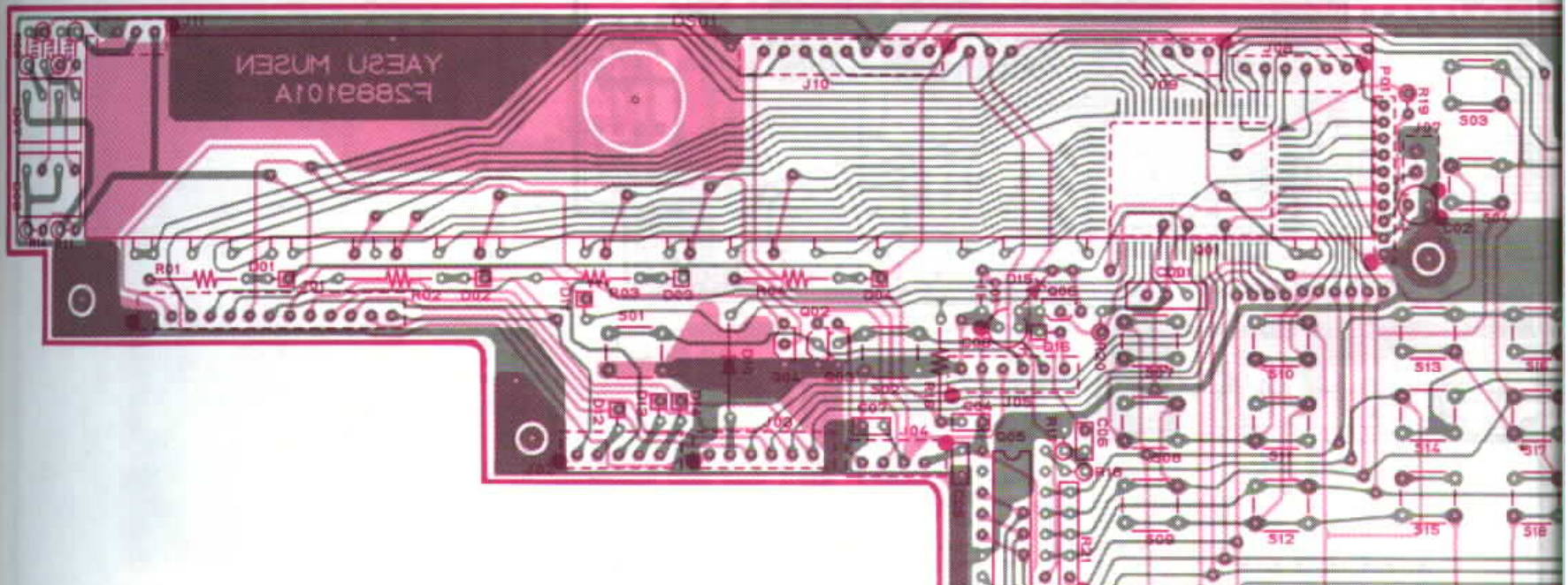




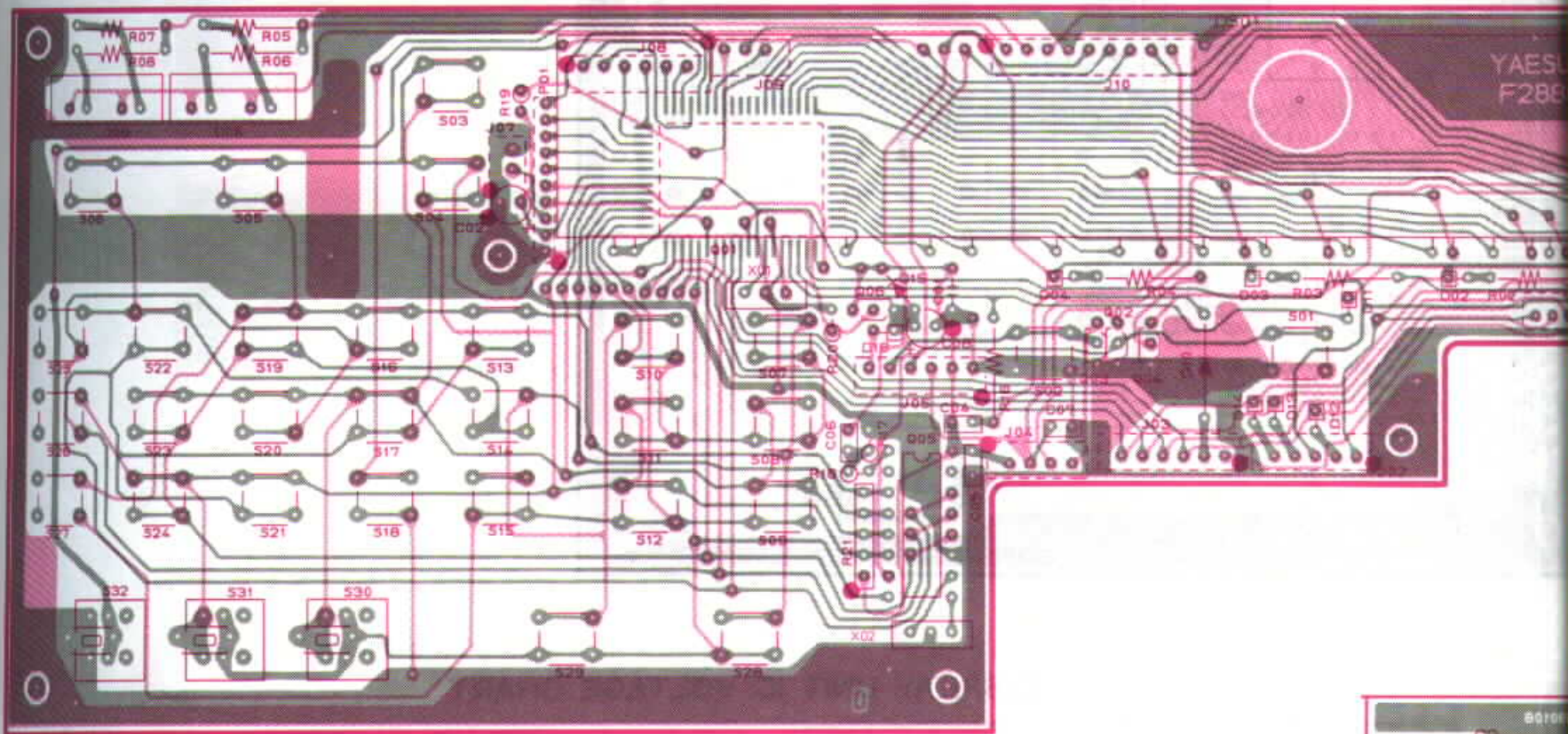


DISPLAY, REG

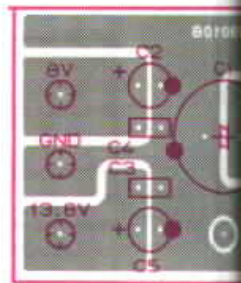
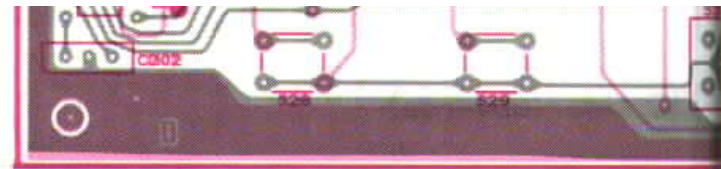
DISPLAY UNIT (No. 2XXX)



- 3 GND
- 2 BUSY/MOD
- 1 13.8V
- 5 PTT
- 4 ALC
- 3 DISC
- 2 S
- 1 S/PO
- 2 PETER
- 1 GND
- 1 DISC
- 2 S
- 3 BUSY LAMP
- 5 MOD LAMP
- 4 ALC
- 3 MOD
- 2 TX IN
- 1 GND
- 2
- 13 RX IN
- 12 RX OUT
- 11 GND
- 10 STOP
- 9 MUTE
- 8
- 7
- 6 NO NET
- 5 PTT
- 4 NAR-R
- 3 LNB-R
- 2 USB-R
- 1 CV-R
- PT-R
- 8 LNB-T
- 7 USB-T
- 6 CV-T
- 5 PTT-T
- 4 NAR-T
- 3 TX
- 2 RX
- 1 GND
- PT

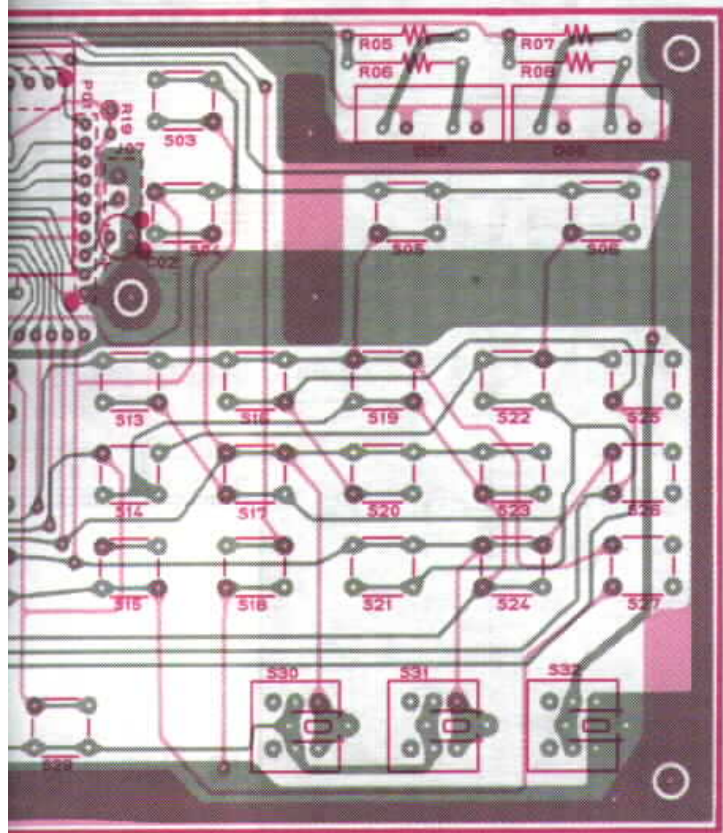


Display side (reverse)

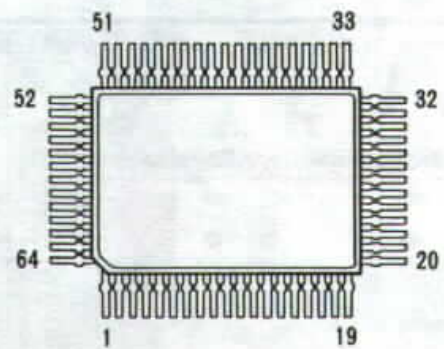


Component side

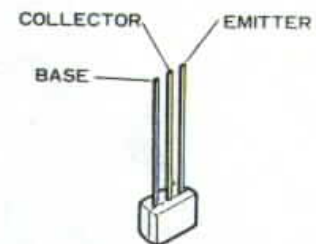
AY, REG and PROTECTOR UNIT PARTS LAYOUT



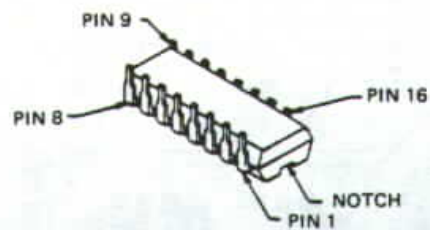
Display side (obverse)



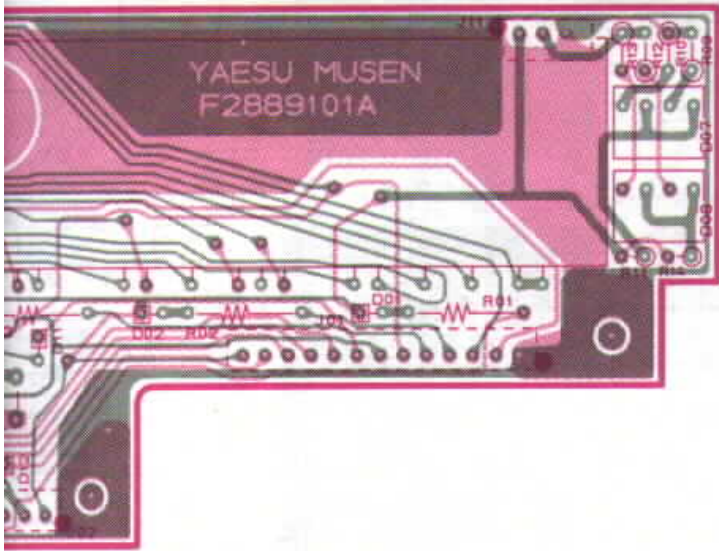
HD614022FH35(Q2001)



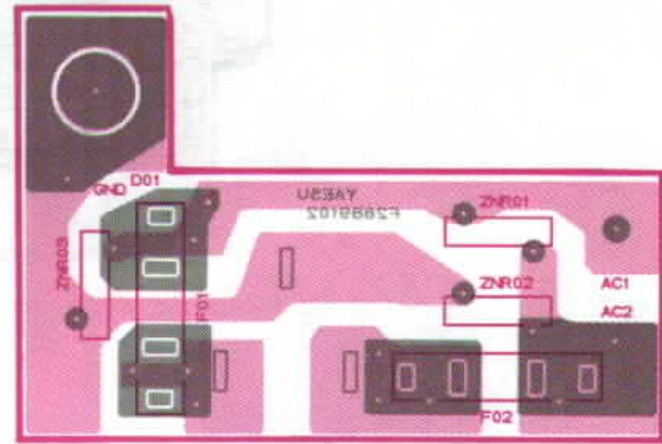
BA1A4P(Q2002-2004)
BN1A4P(Q2006)



LR4087(Q2005)

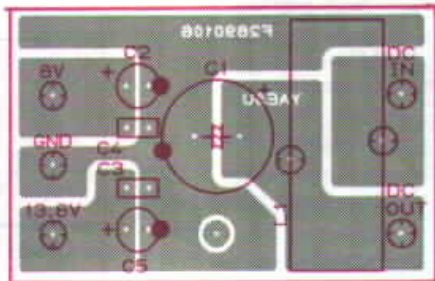


PROTECTOR UNIT (No. 7XX)

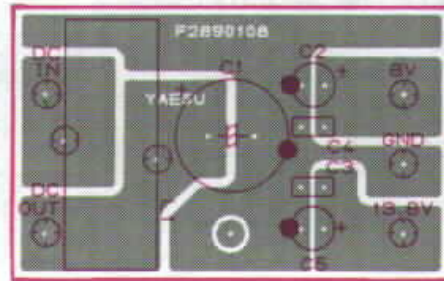


Component side (obverse)

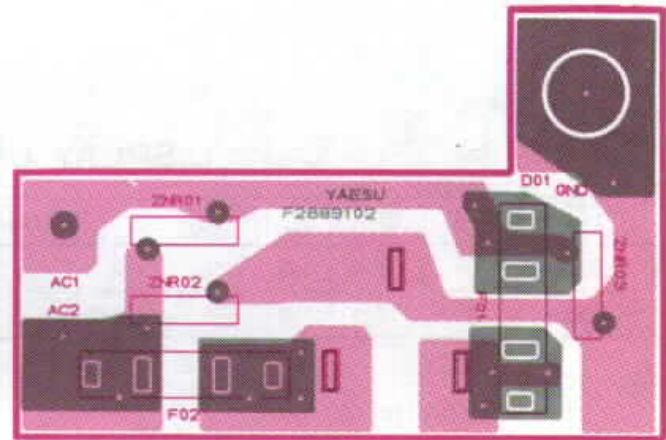
REG UNIT (No. 8XX)



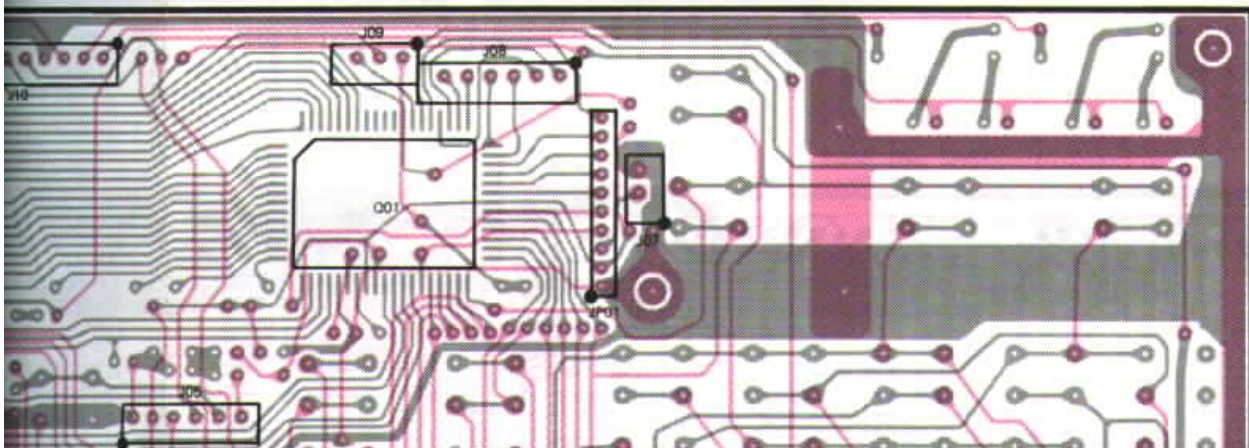
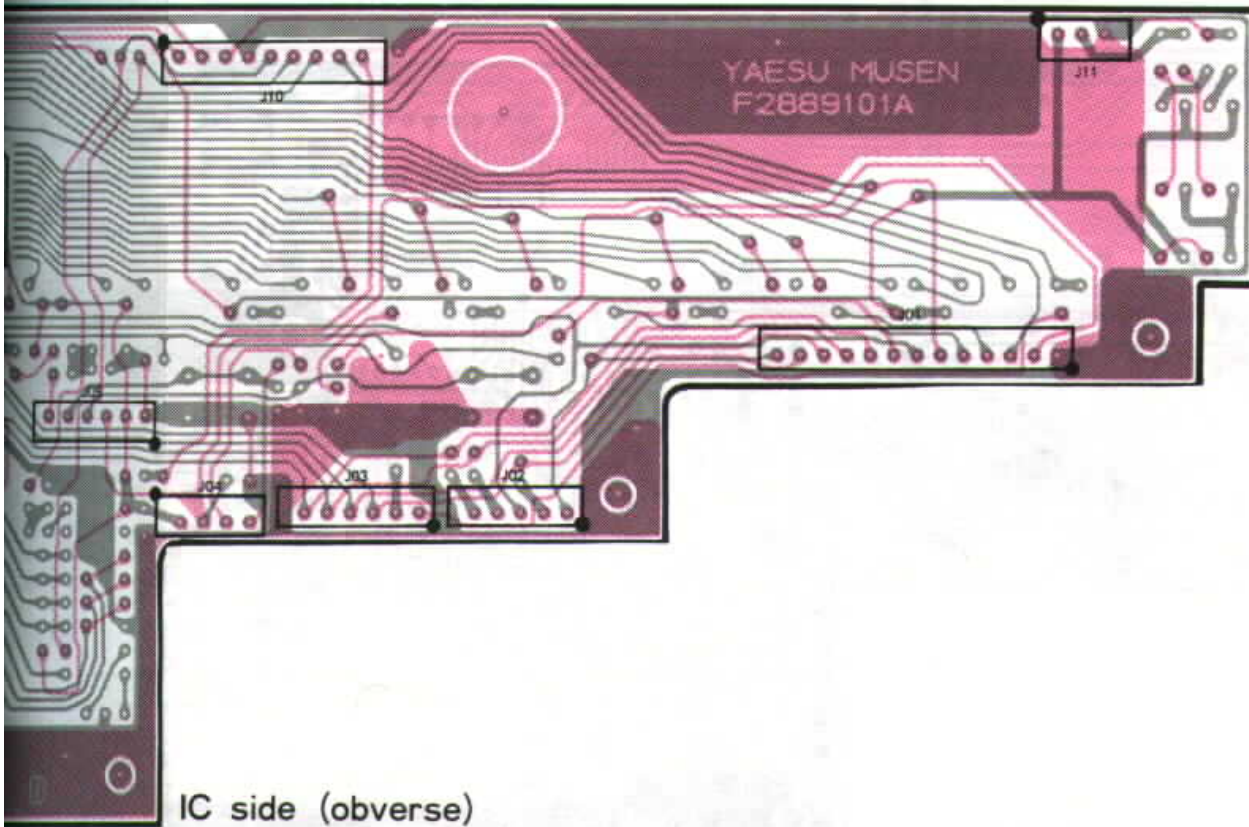
Component side (obverse)

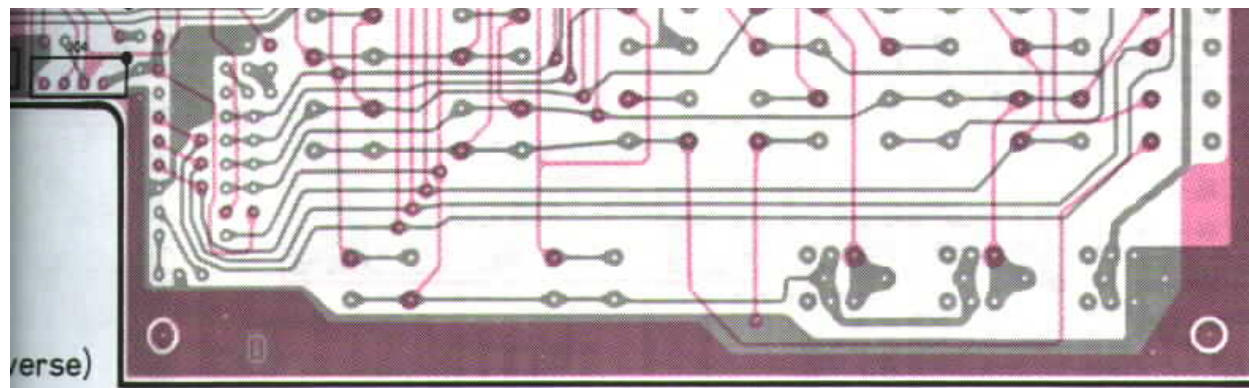


Component side (reverse)



Component side (reverse)





verse)

VOLTS)

REMARKS

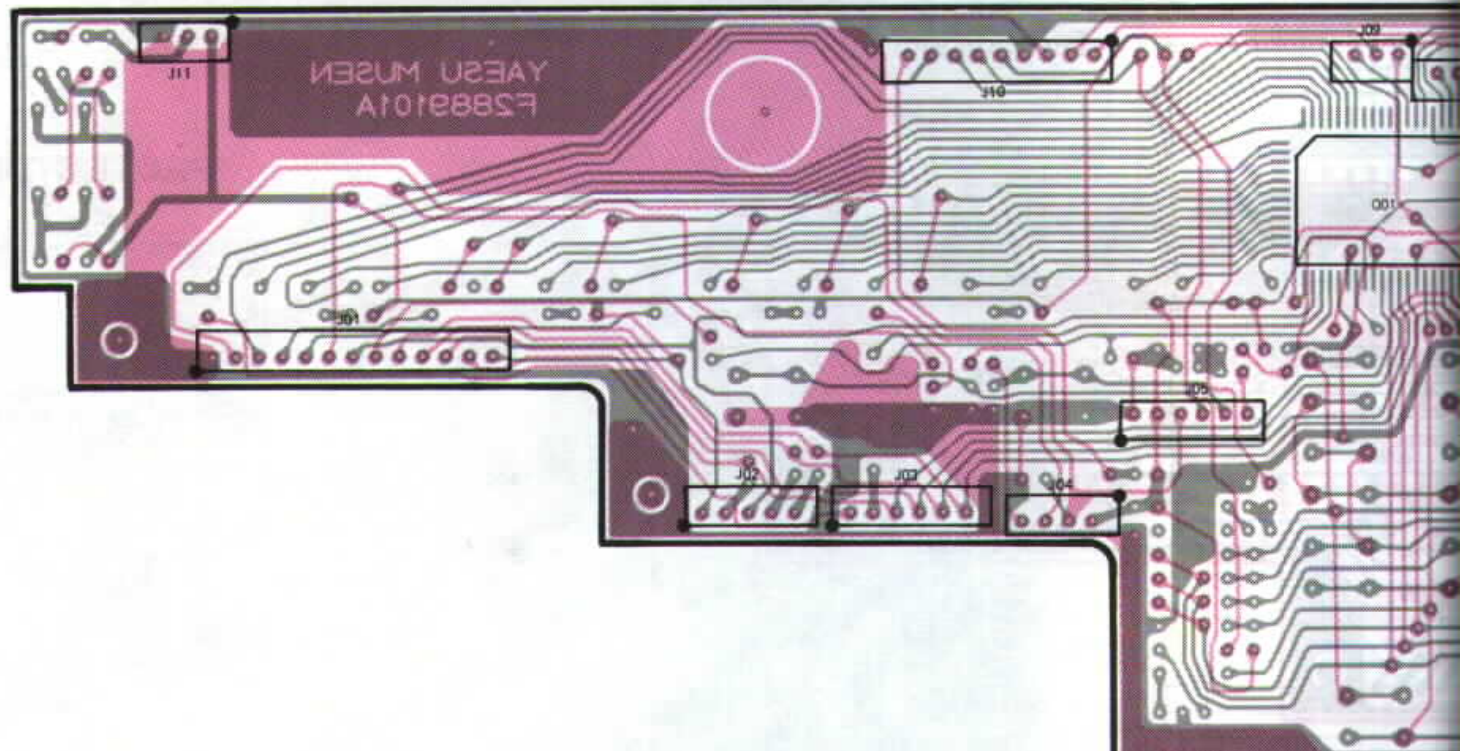
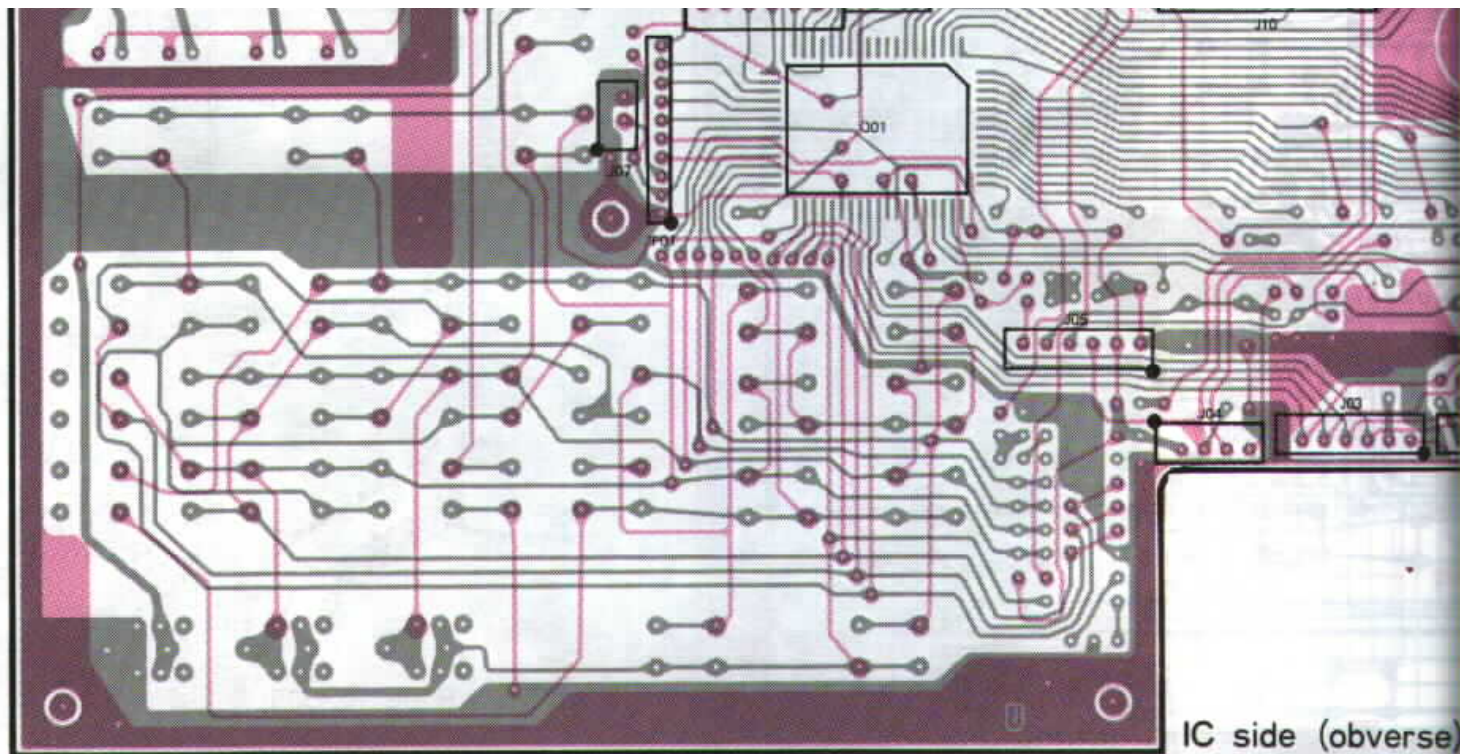
DISPLAY UNIT IC VOLTAGE CHART

(DC VOLTS)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	REMARKS
	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	
	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	
	52	53	54	55	56	57	58	59	60	61	62	63	64					
Q2001	-10.50	-32.00	-10.50	-13.60	-16.60	-19.80	-25.80	—	—	—	—	4.80	-32.20	5.00	5.00	5.00	5.00	
	5.00	5.00	5.00	5.00	0	0.05	0	0.01	5.0	5.00	5.00	5.00	5.00	1.10	1.00	1.05	0.35	
	0.37	0.38	0.38	0	5.00	5.00	5.00	5.00	0	5.00	0.24	2.40	0	5.00	1.10	0.80	1.05	
	-29.20	-29.20	-29.20	-29.20	-29.20	-24.00	-29.20	-29.20	-29.20	-29.20	-29.20	-29.20	-19.70					
Q2005	5.0	5.0	0	0	0	0	0	5.0	0	0	5.0	5.0	5.0	5.0	5.0	0		

DISPLAY UNIT PARTS LAYOUT





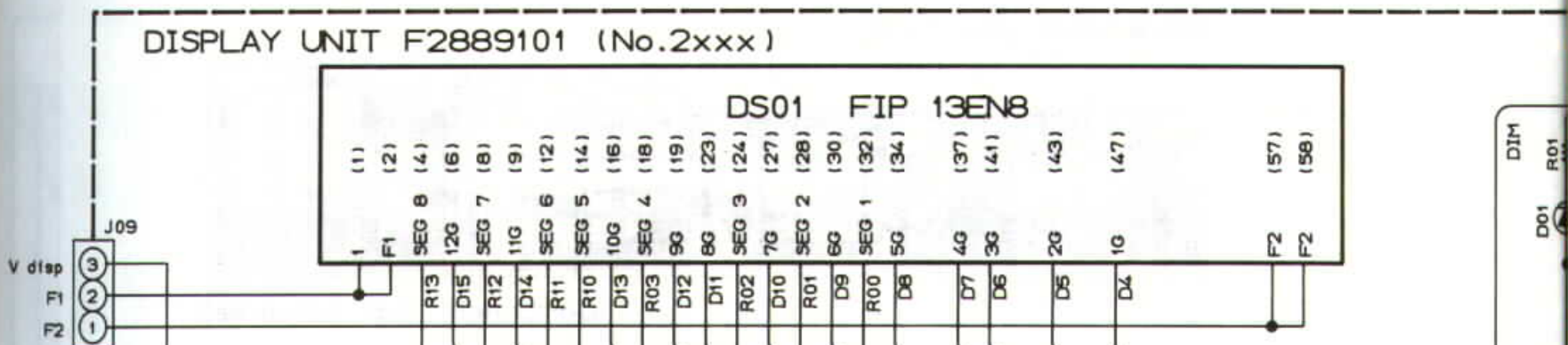
DISPLAY UNIT VOLTAGE CHART

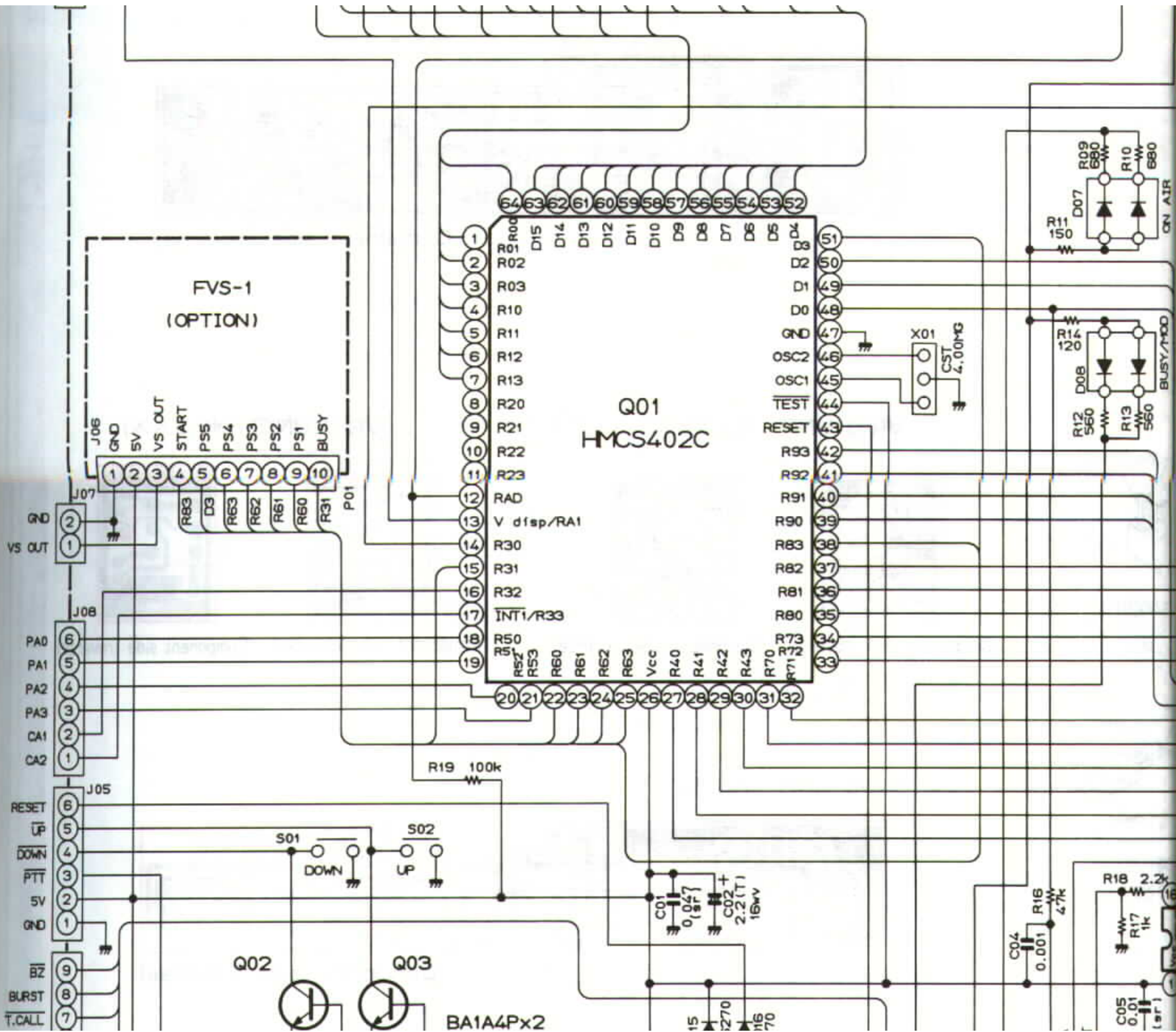
(DC VOLTS)

	E(S)	O(D)	(G ₁) ^B	(G ₂)	REMARKS		E(S)	O(D)	(G ₁) ^B	(G ₂)	REMARKS
Q2002	0	5.0	0			Q2004	0	12.0	0		
Q2003	0	5.0	0			Q2006	0	5.0	0		

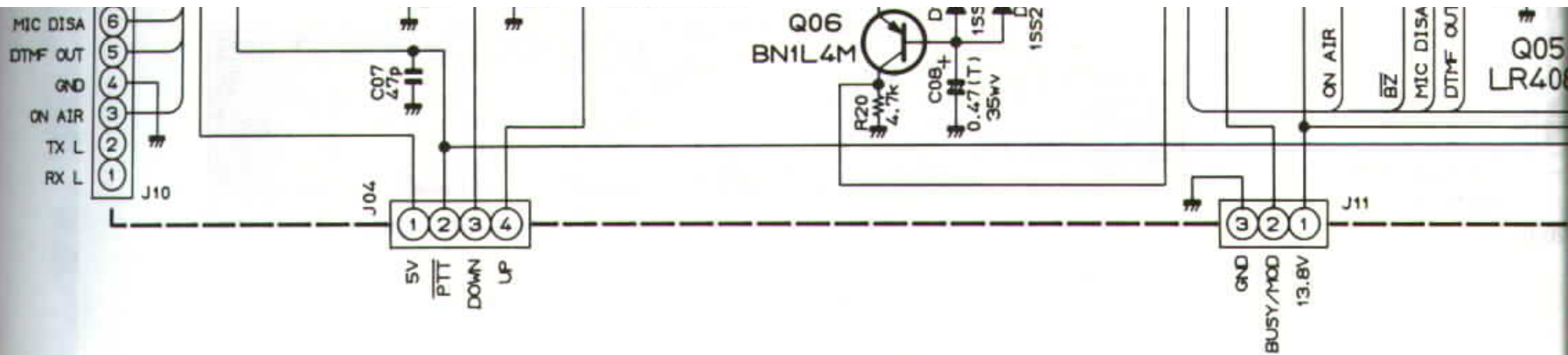
※ In the initialize state.

	1
	18
	35
	52
Q2001	-10.5
	5.00
	0.37
	-29.2
Q2005	5.0

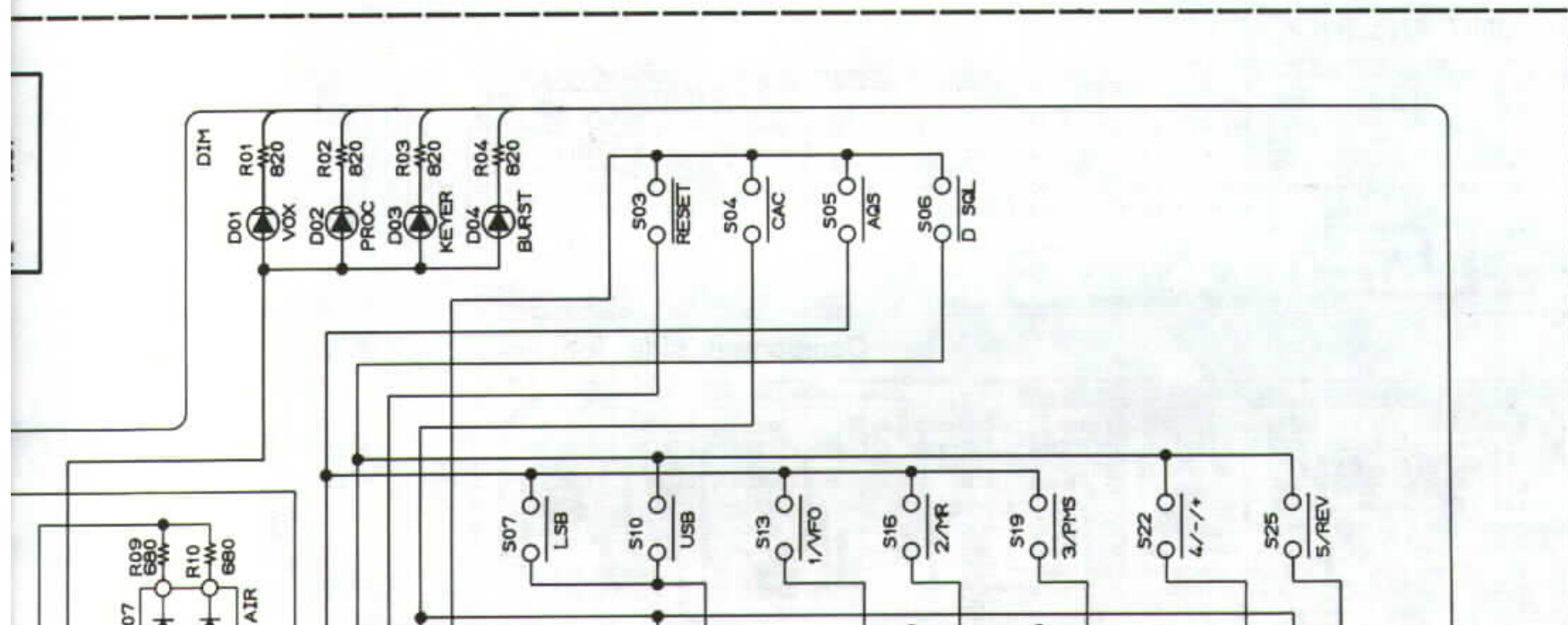


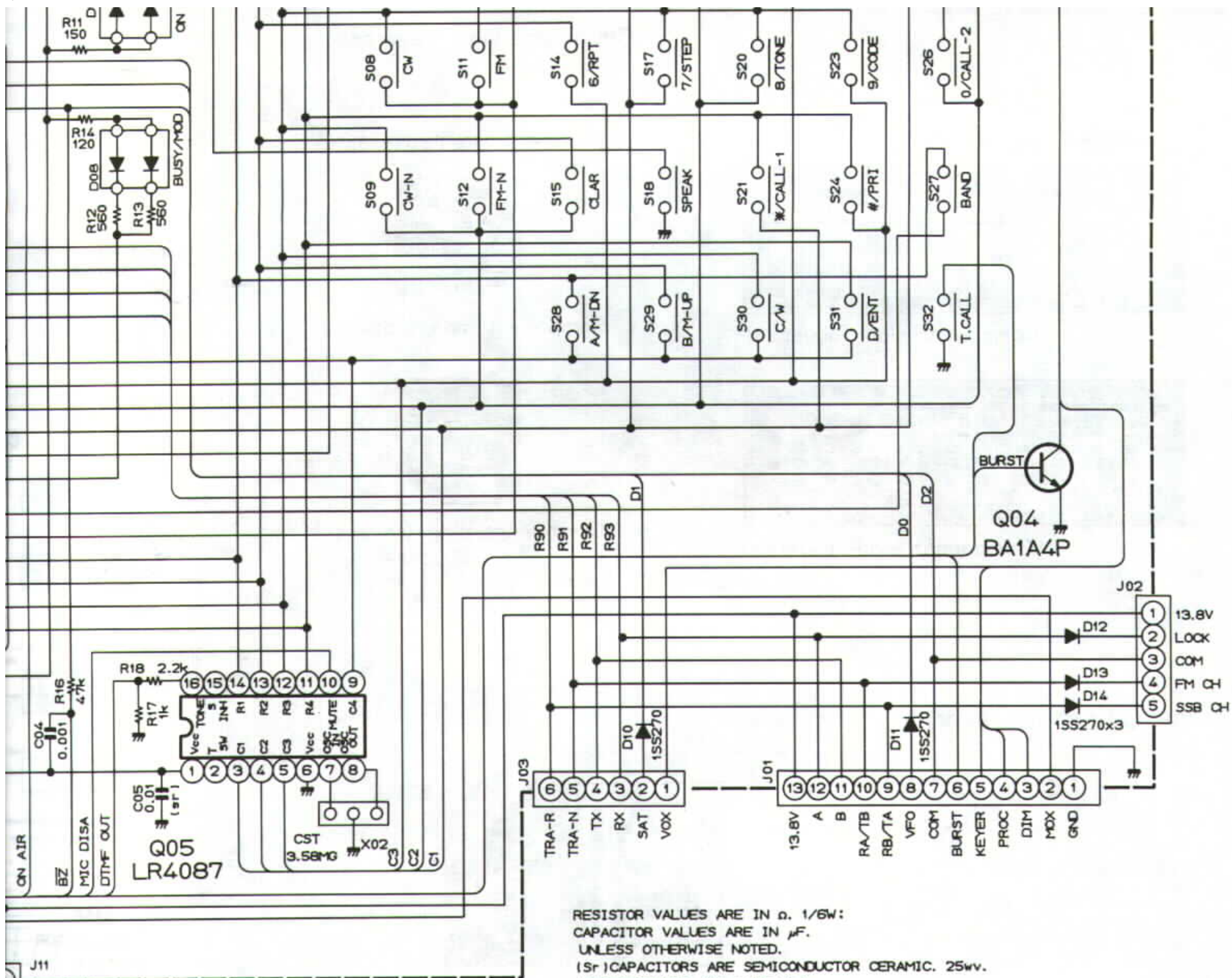


MARKS



DISPLAY UNIT CIRCUIT DIAGRAM

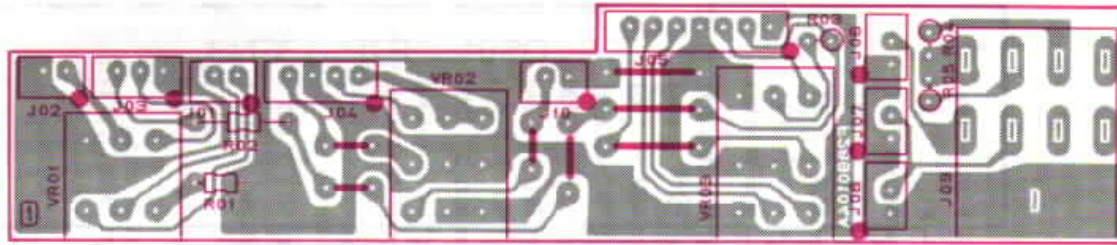




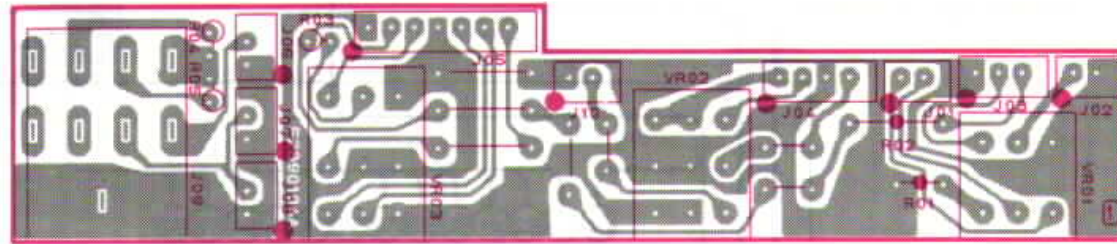
RESISTOR VALUES ARE IN Ω , 1/6W:
 CAPACITOR VALUES ARE IN μ F.
 UNLESS OTHERWISE NOTED.
 (S_r) CAPACITORS ARE SEMICONDUCTOR CERAMIC, 25wv.
 (T) CAPACITORS ARE TANTALUM.

LAYOUT

VR-A UNIT (No. 4XX)



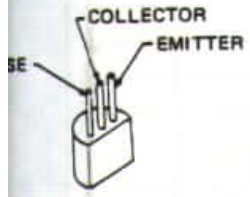
Component side (obverse)



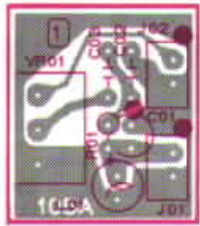
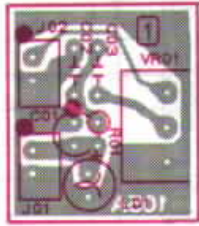
Component side (reverse)

VR-B UNIT (No. 5××)

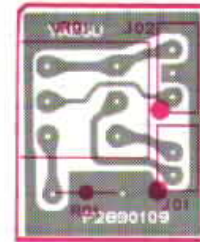
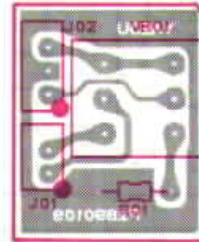
VR-D UNIT (No. 9××)



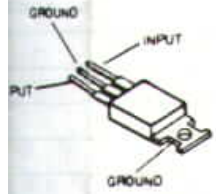
SA733AQ(Q101)



Component side (obverse) Component side (reverse)

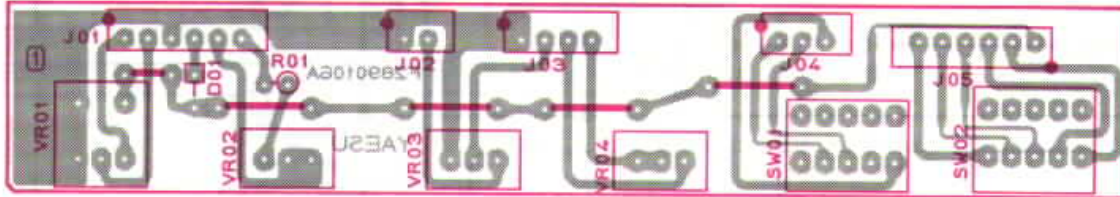


Component side (obverse) Component side (reverse)

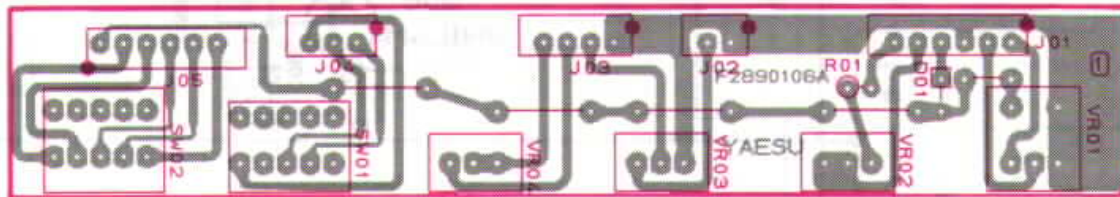


PC7808H(Q1)
7809(Q2,Q3)

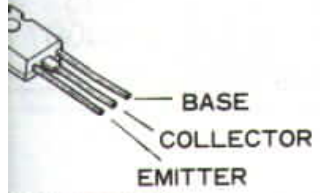
VR-C UNIT (No. 2××)



Component side (obverse)



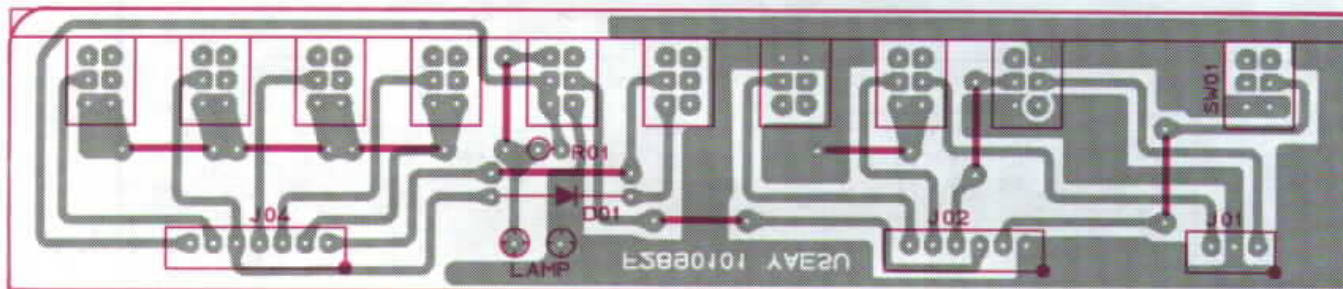
Component side (reverse)



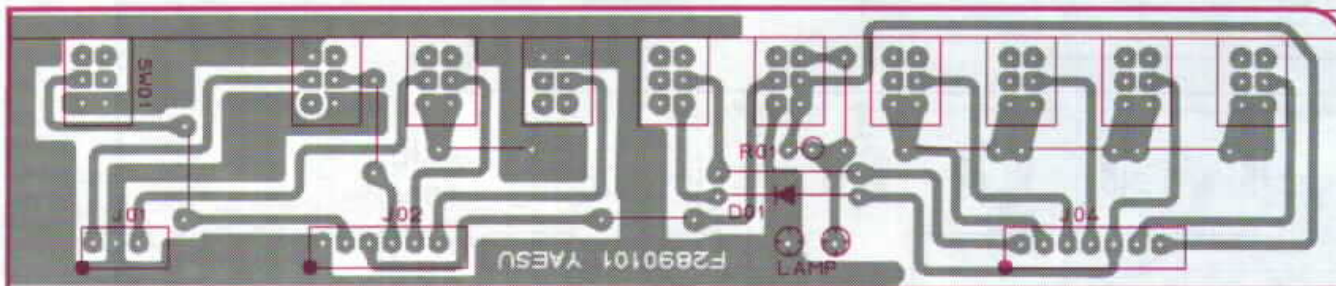
5C3420GR(Q4)

SW, ENCODER and VR UNIT PARTS LAYOUT

SW-A UNIT (No. 3XX)

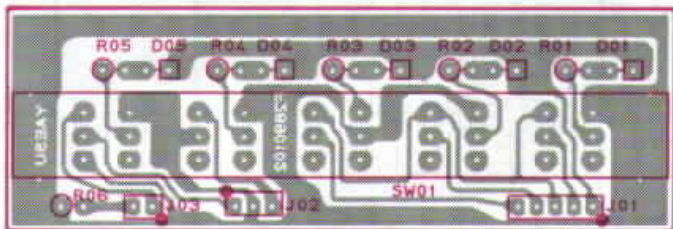


Component side (obverse)



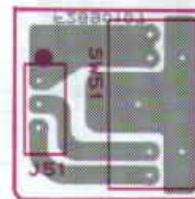
Component side (reverse)

SW-B UNIT (No. 6XX)

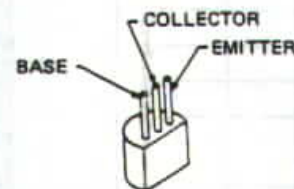


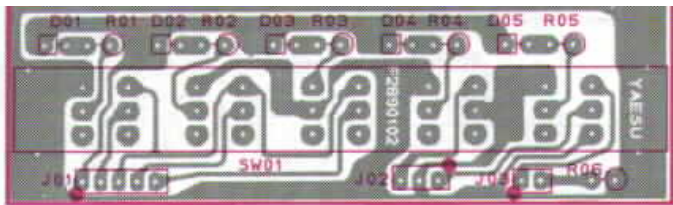
Component side (obverse)

ENCODER UNIT (No. 55X)

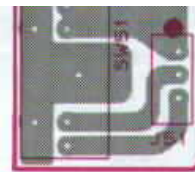


Component side (obverse)





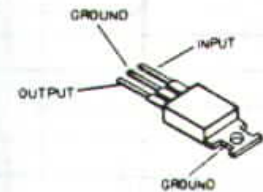
Component side (reverse)



Component side (reverse)

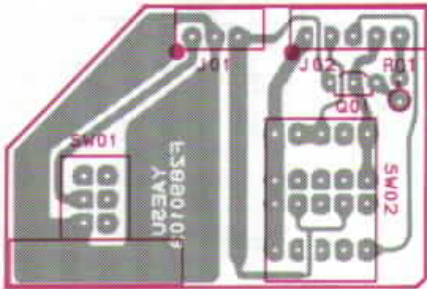
2SA733A(Q101)

Compt

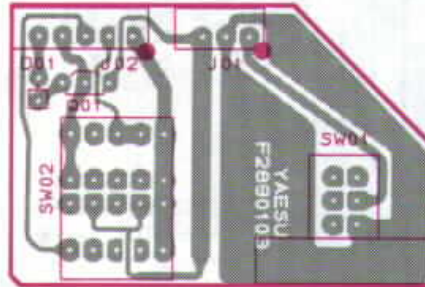


μPC7808H(Q1)
L7809(Q2,Q3)

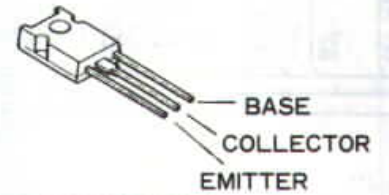
SW-C UNIT (No. 1×X)



Component side (obverse)

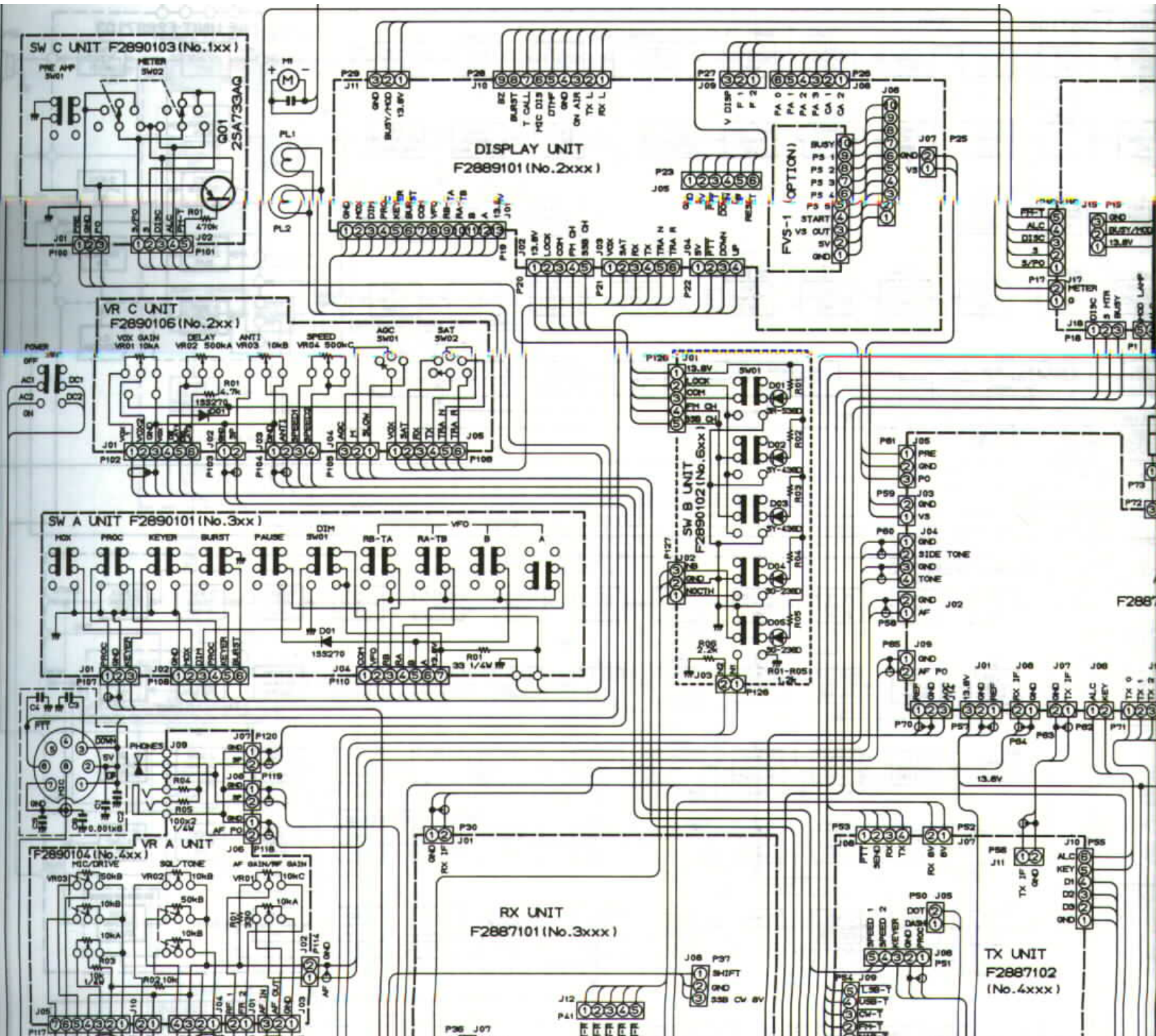


Component side (reverse)

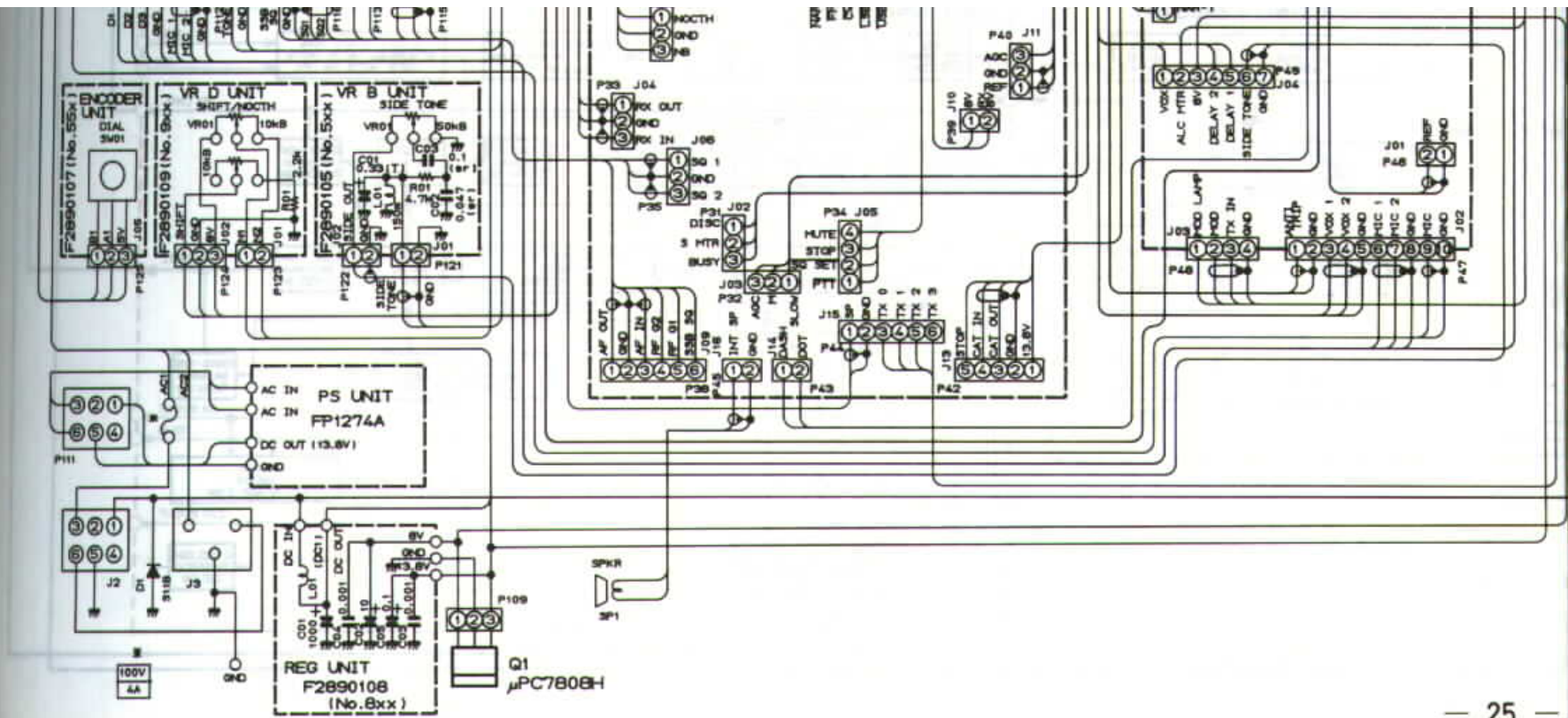


2SC3420GR(Q4)

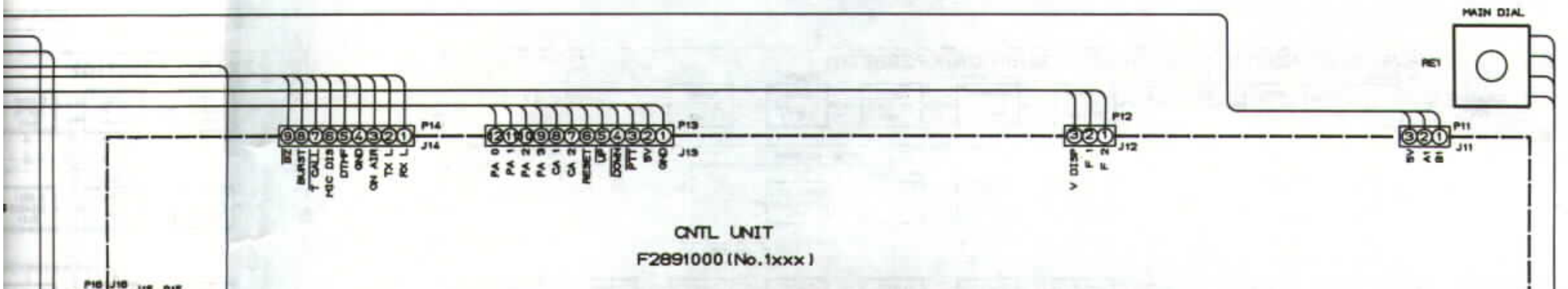
※ Circuit Diagram is as shown page 25.

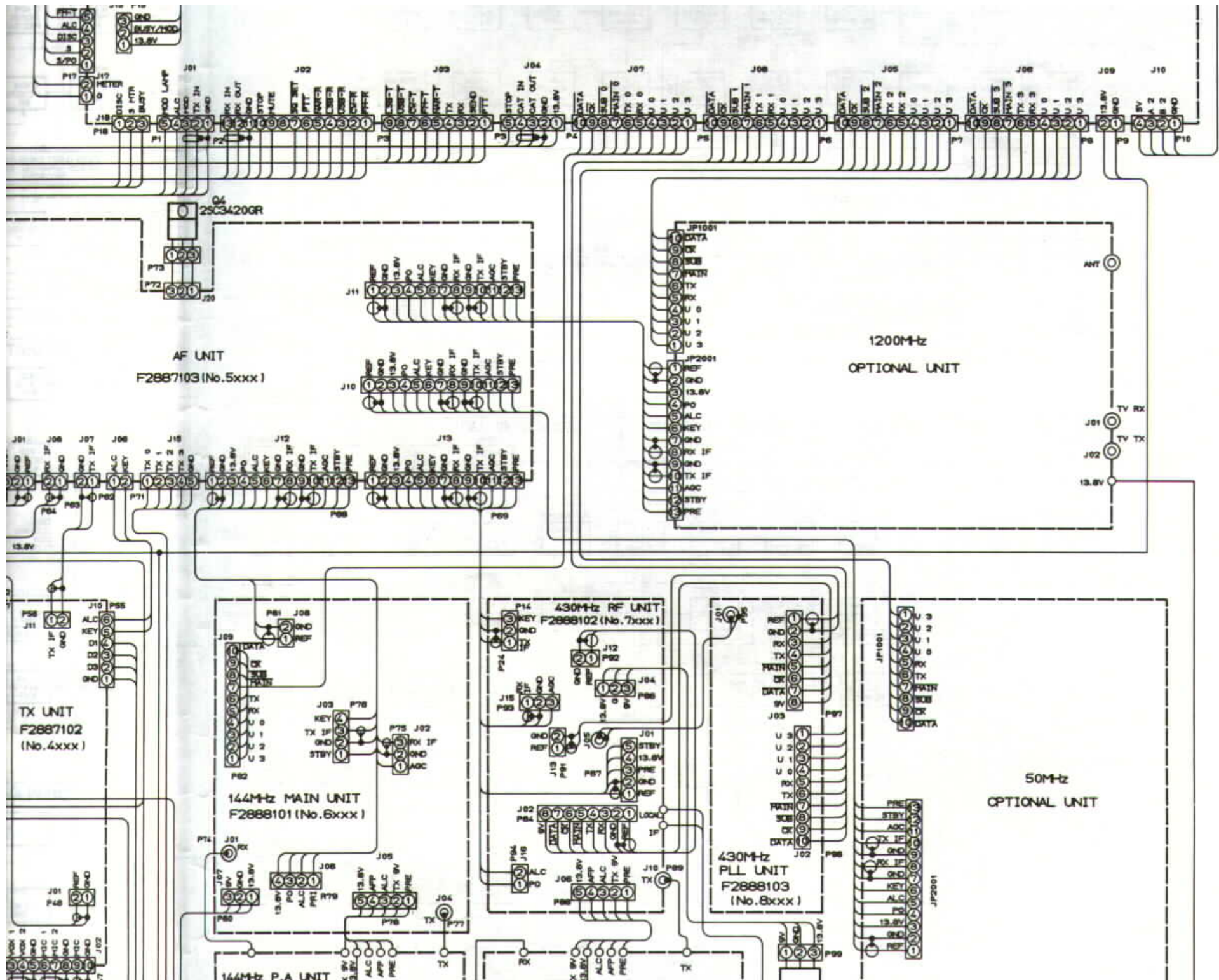


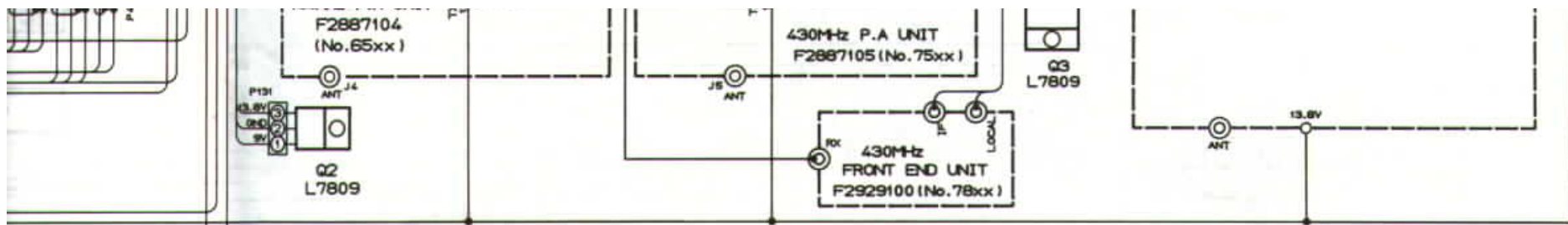
(reverse)



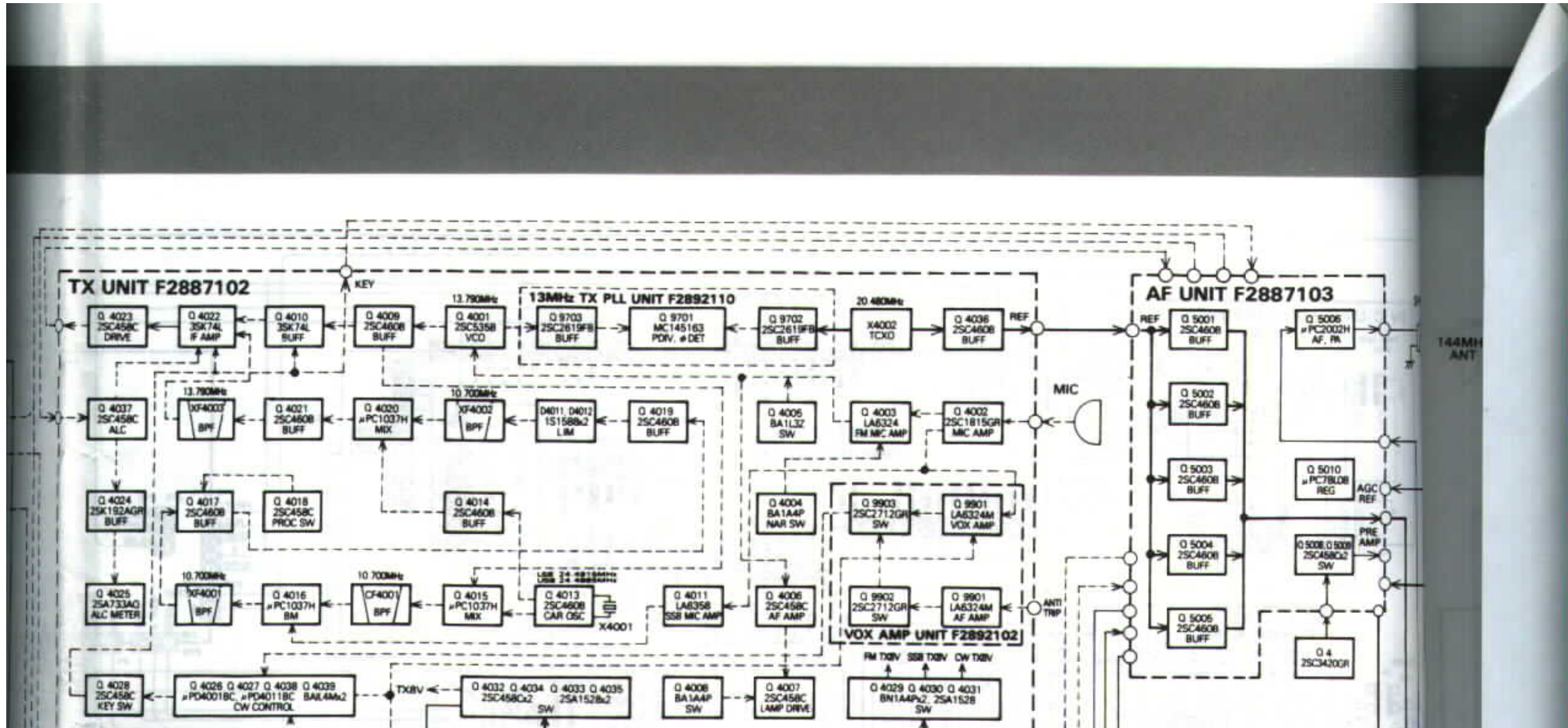
CONNECTION DIAGRAM

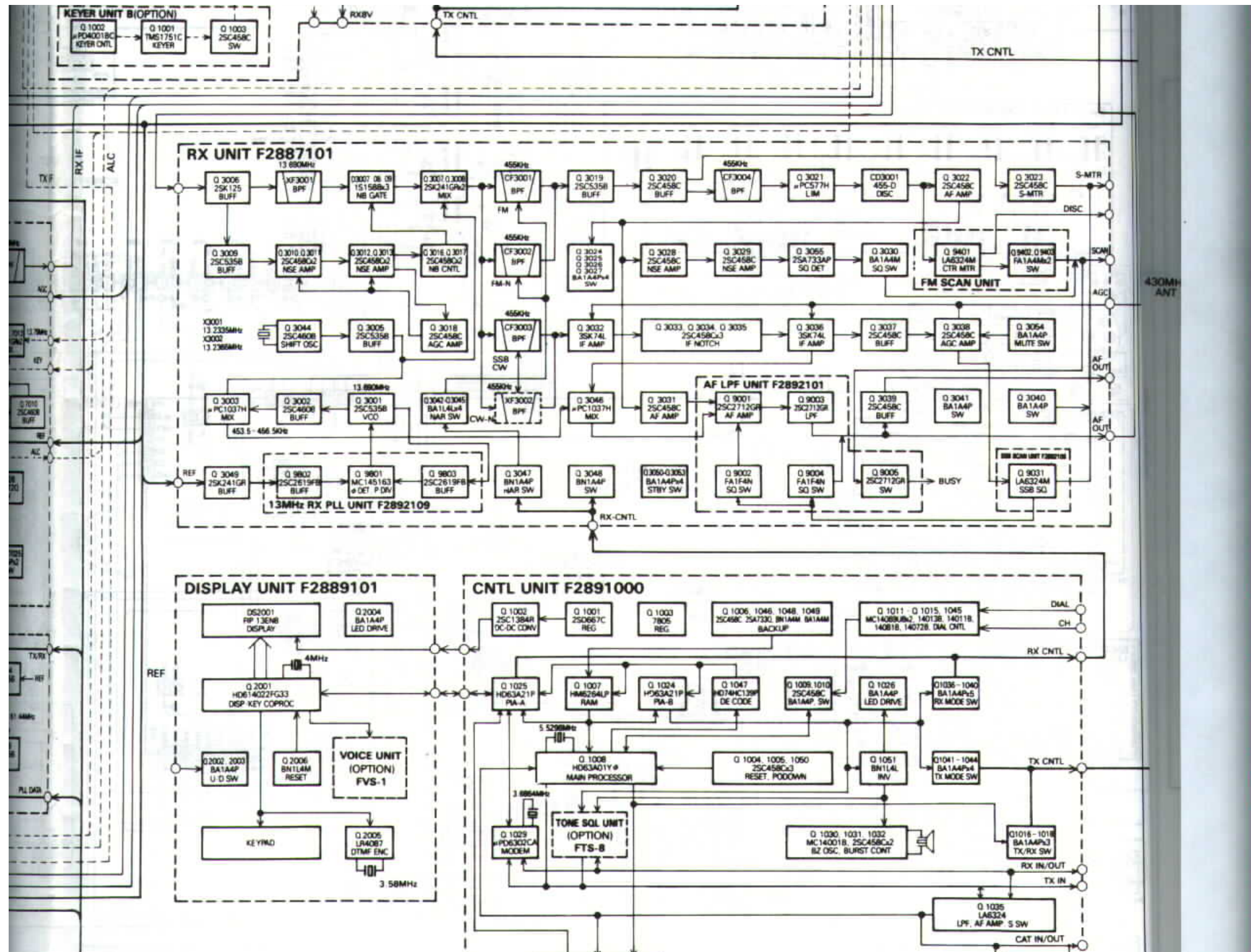


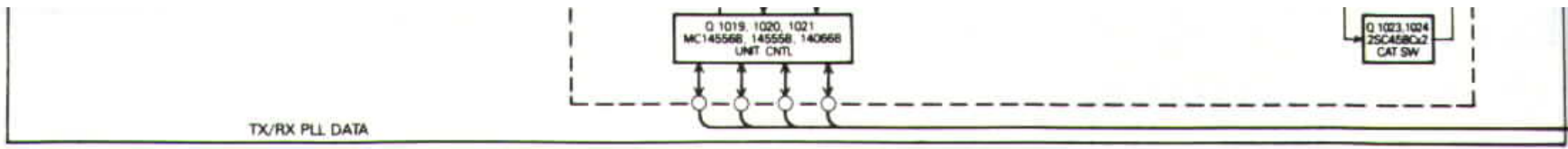




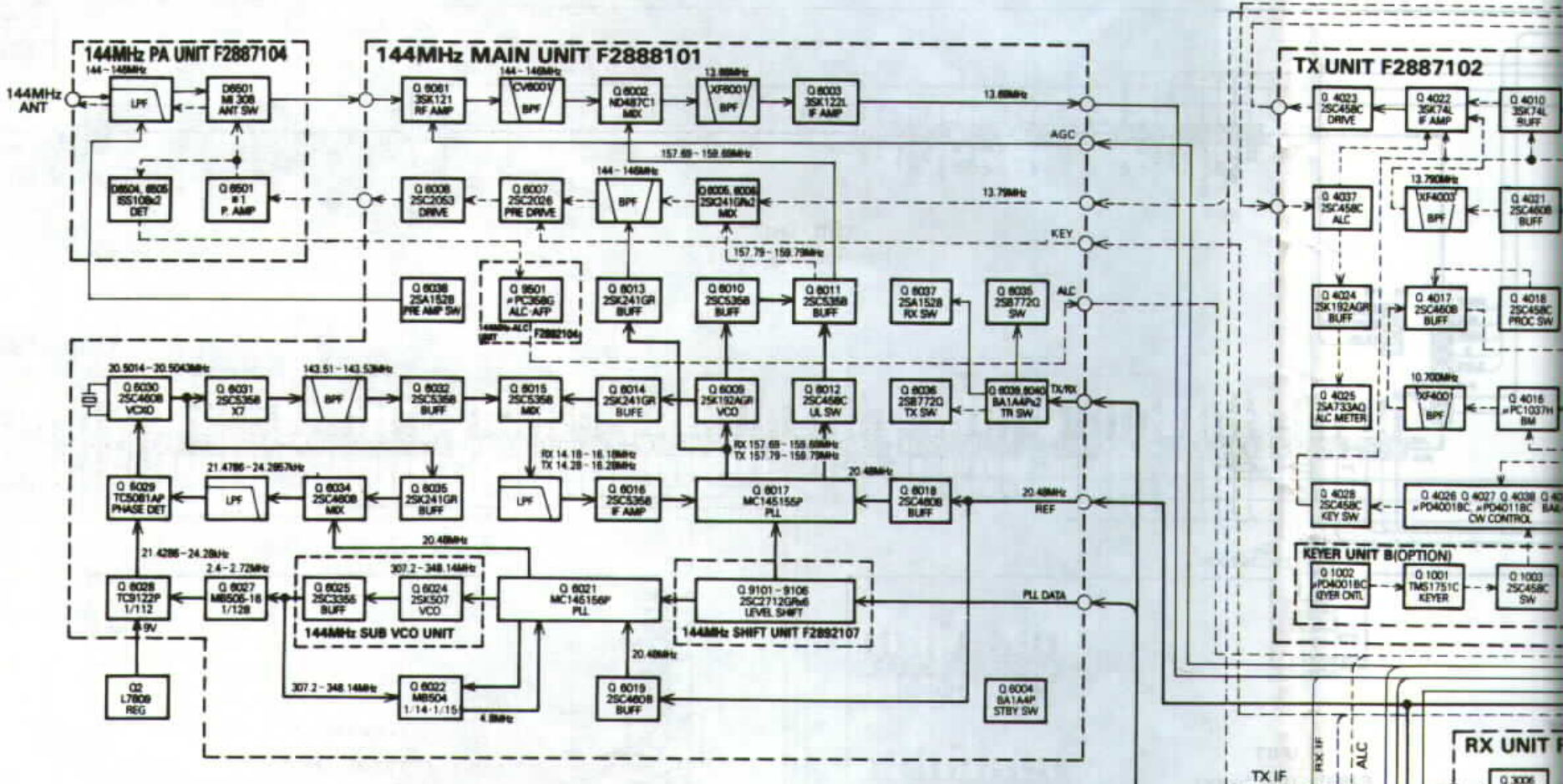
RESISTOR VALUES ARE IN Ω , 1/8W;
 CAPACITOR VALUES ARE IN μ F.
 (T)CAPACITORS ARE TANTALUM.
 (1r)CAPACITORS ARE SEMICONDUCTOR CERAMIC, 25V, UNLESS OTHERWISE NOTED.

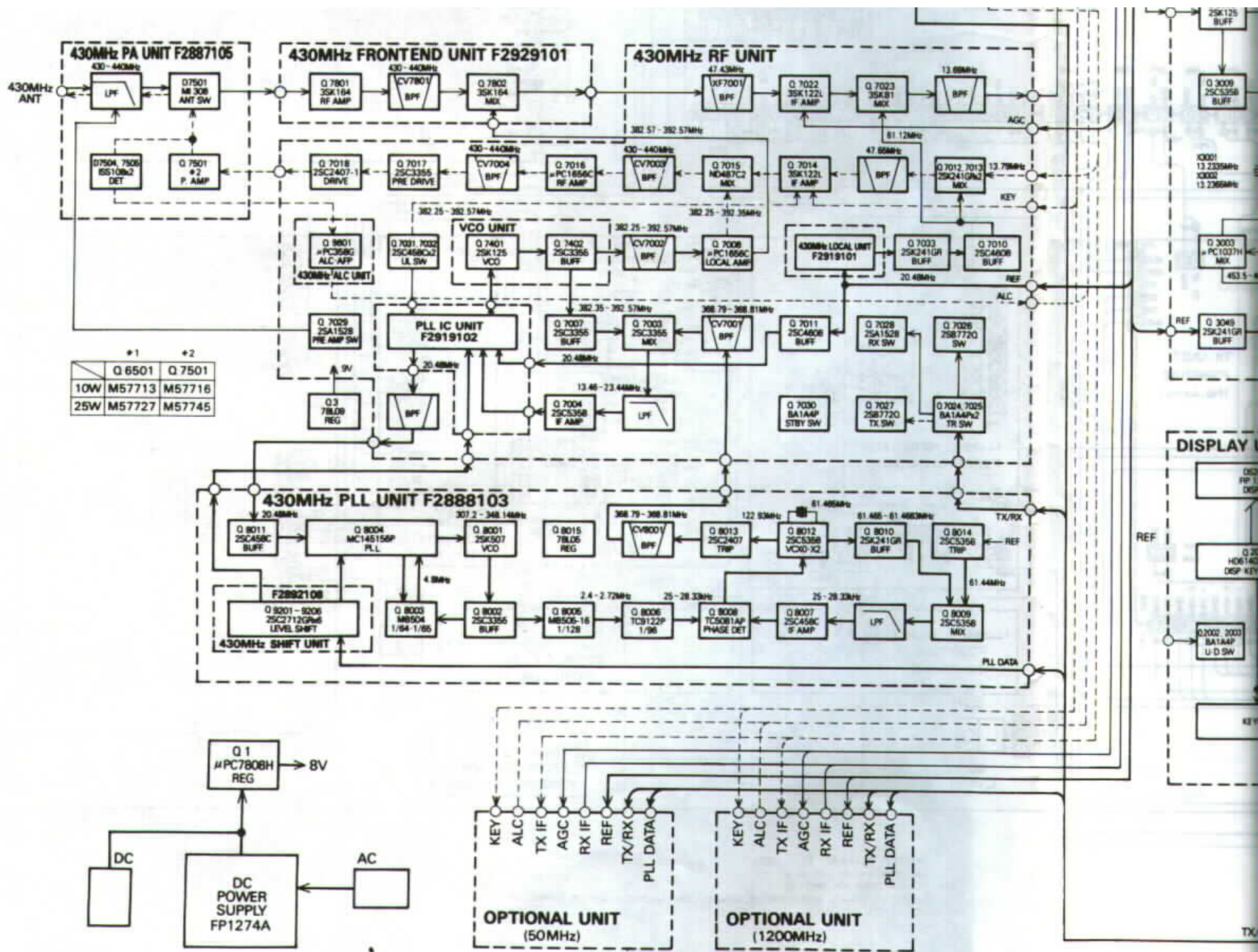


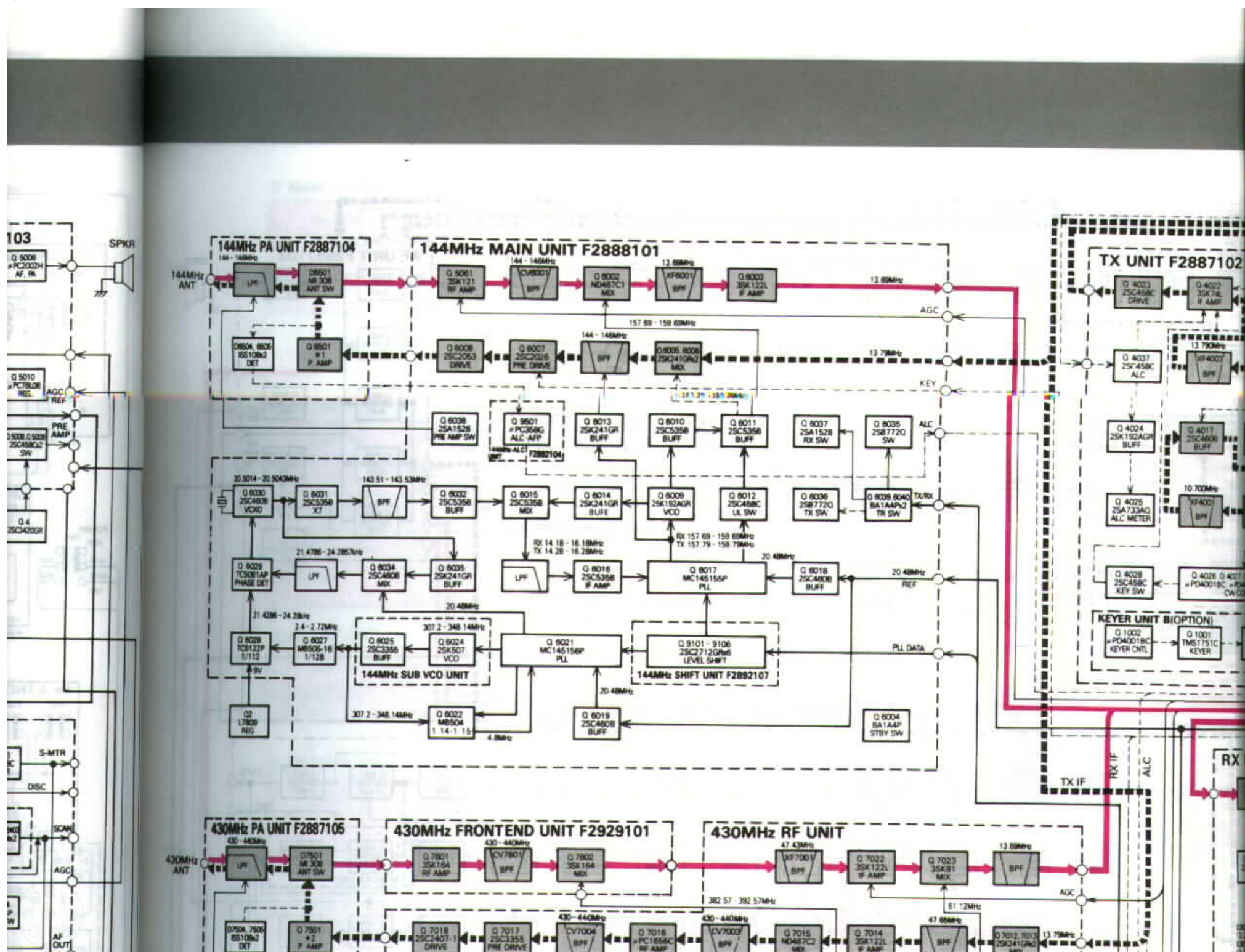


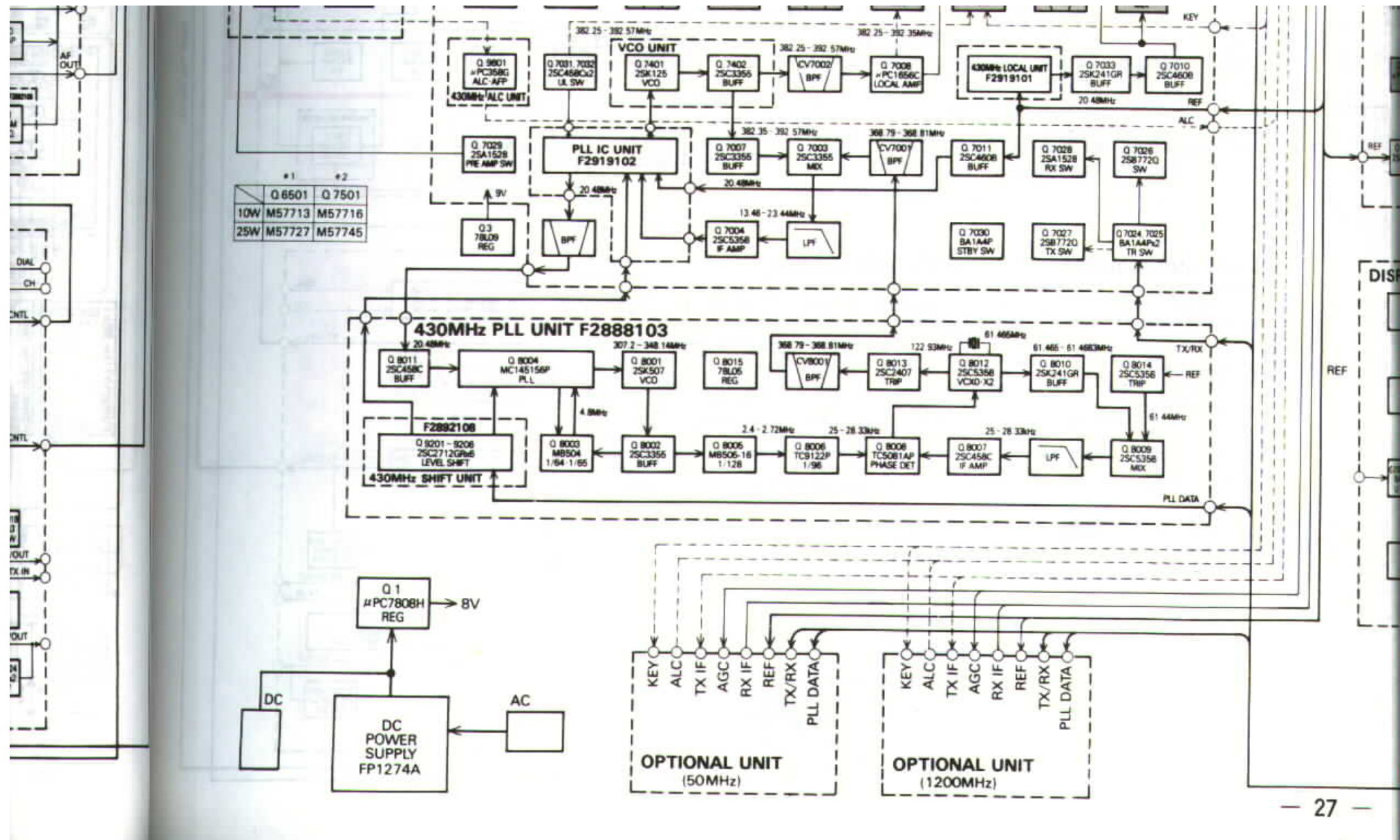


BLOCK DIAGRAM

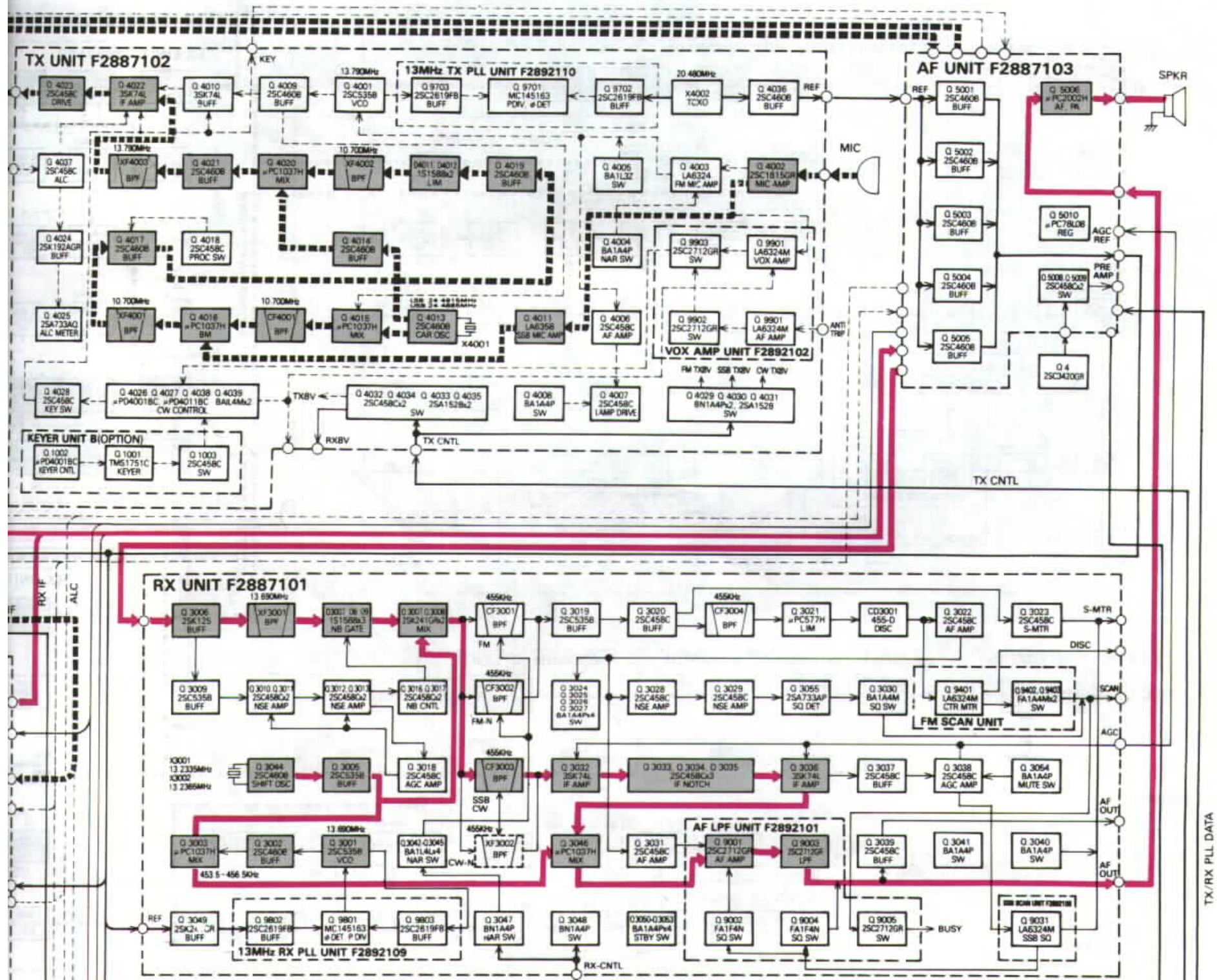


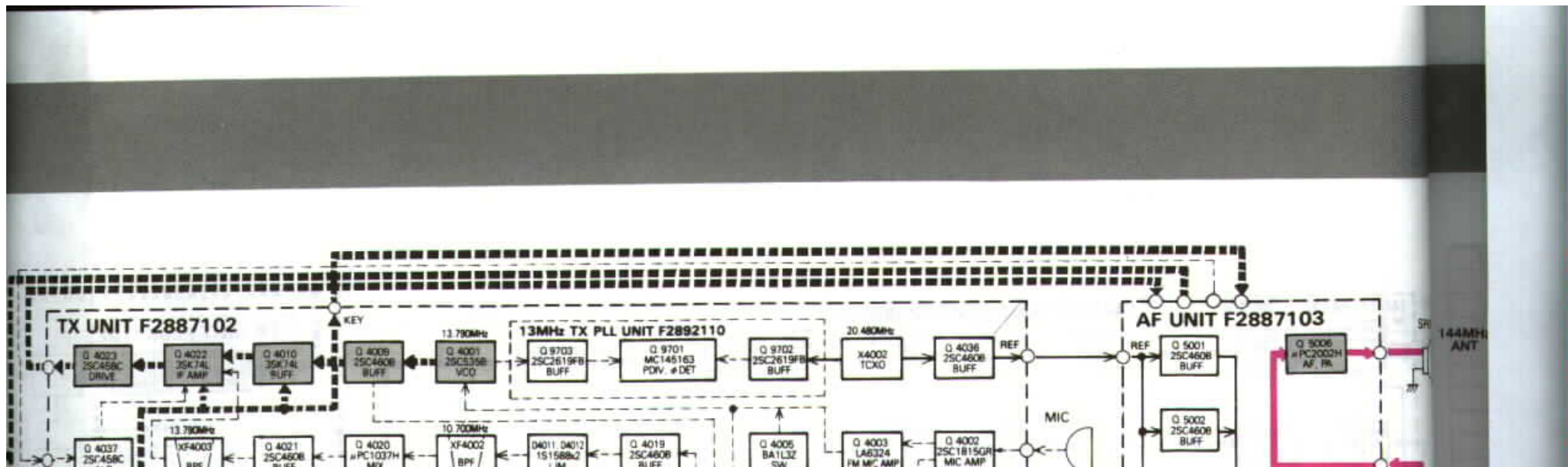
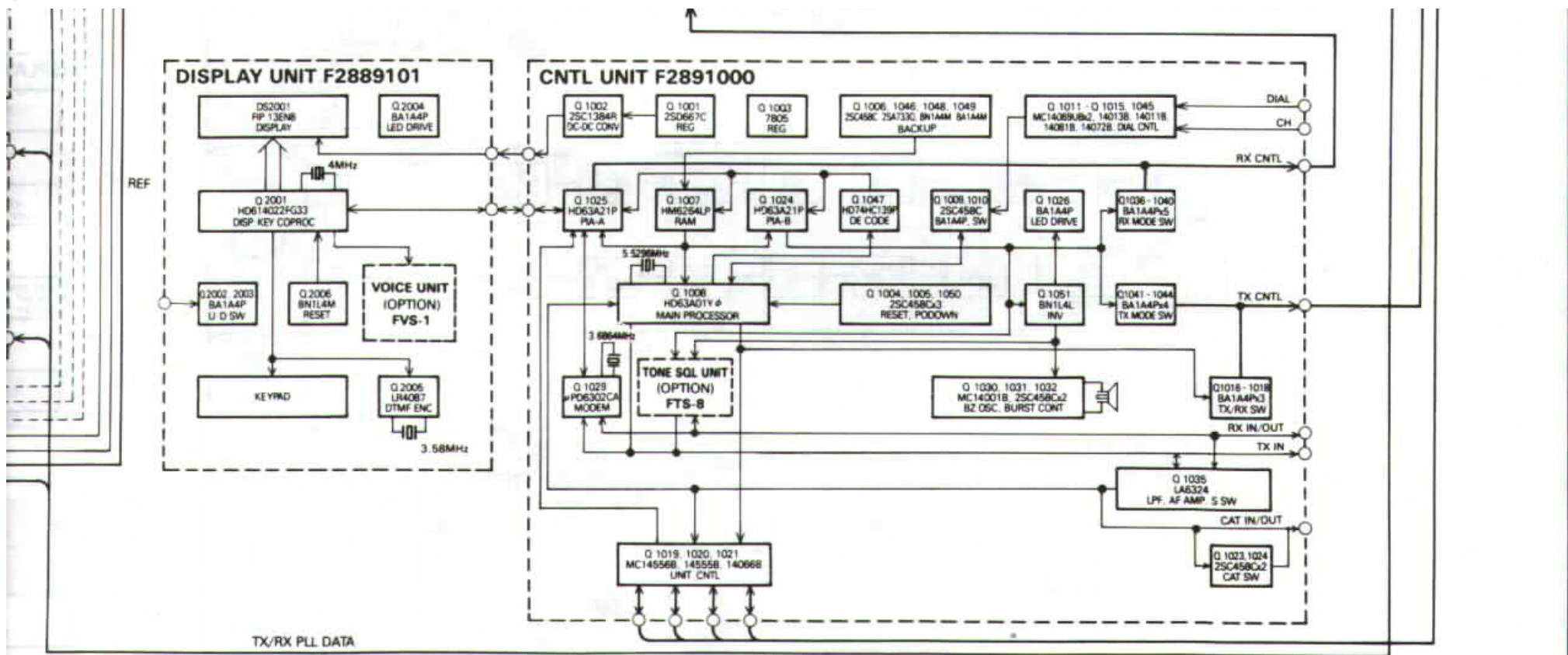


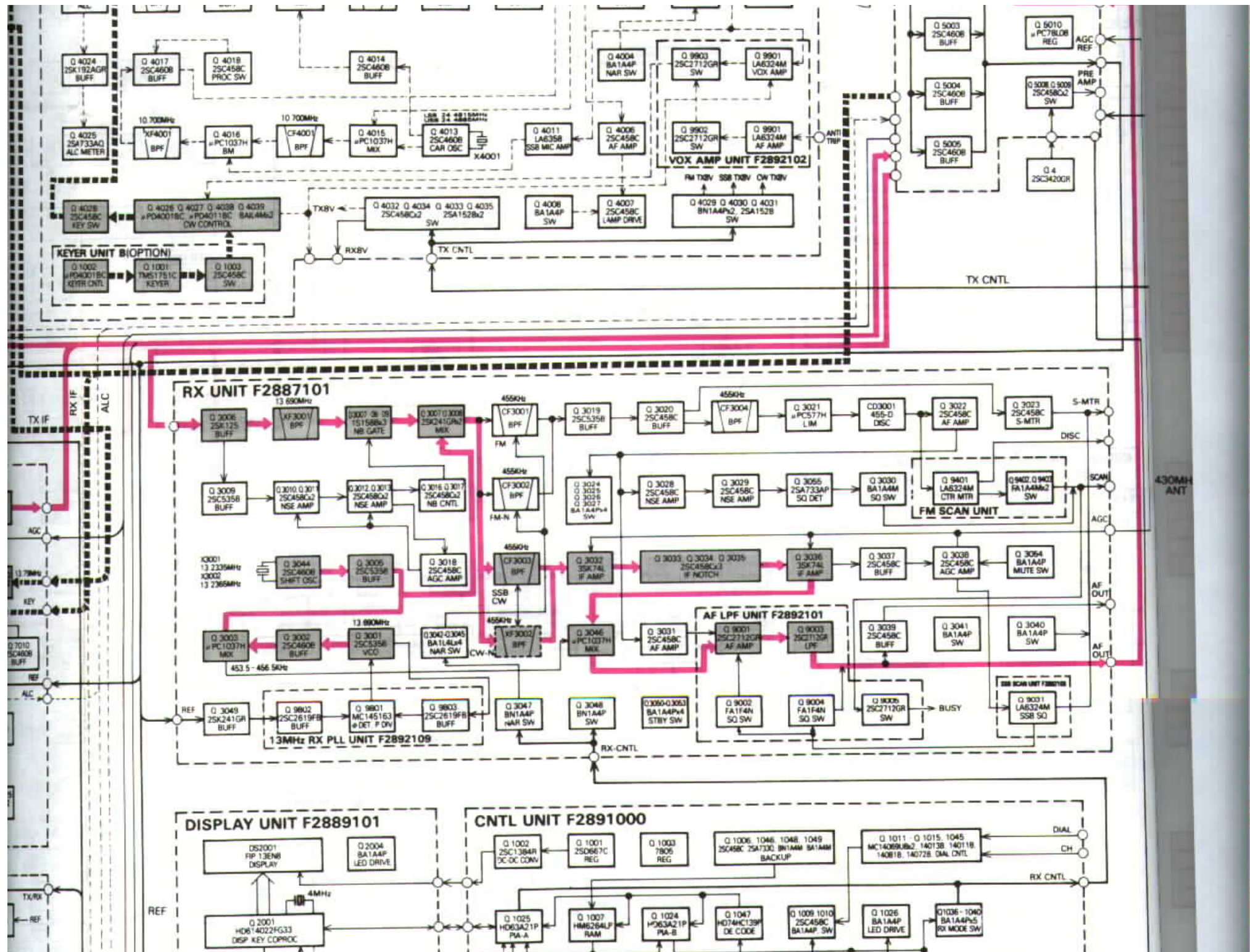


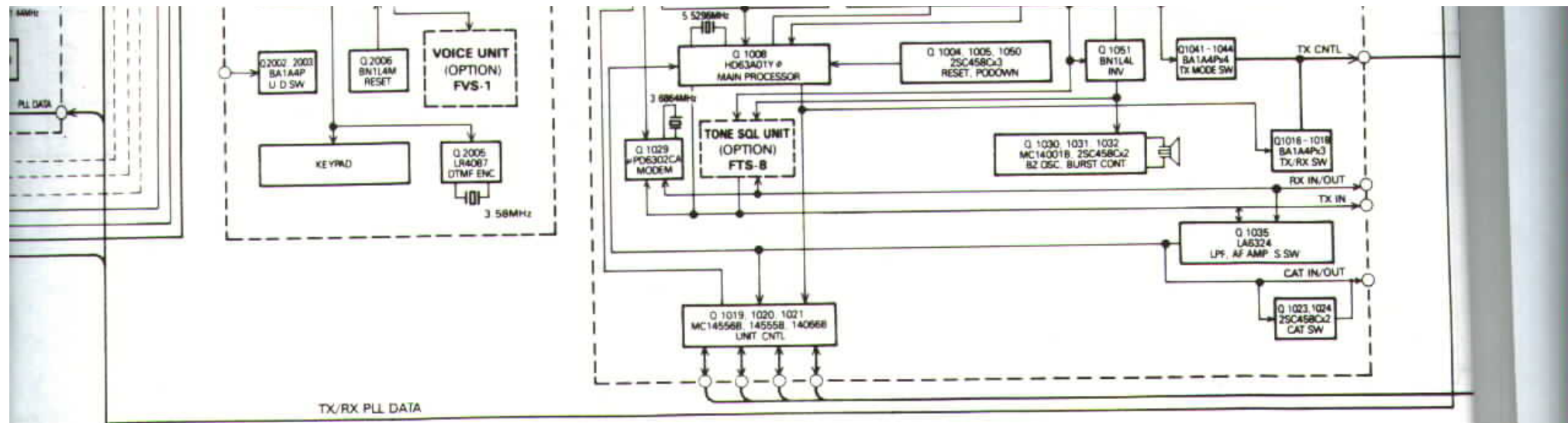


SIGNAL TRACING (SSB MODE)

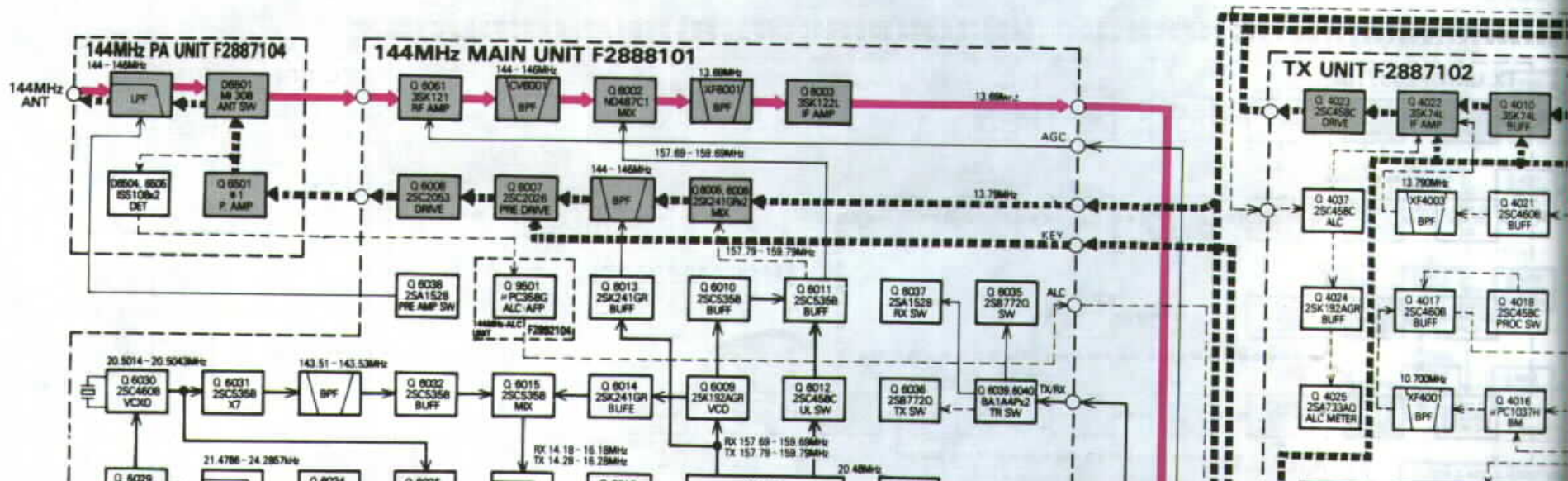


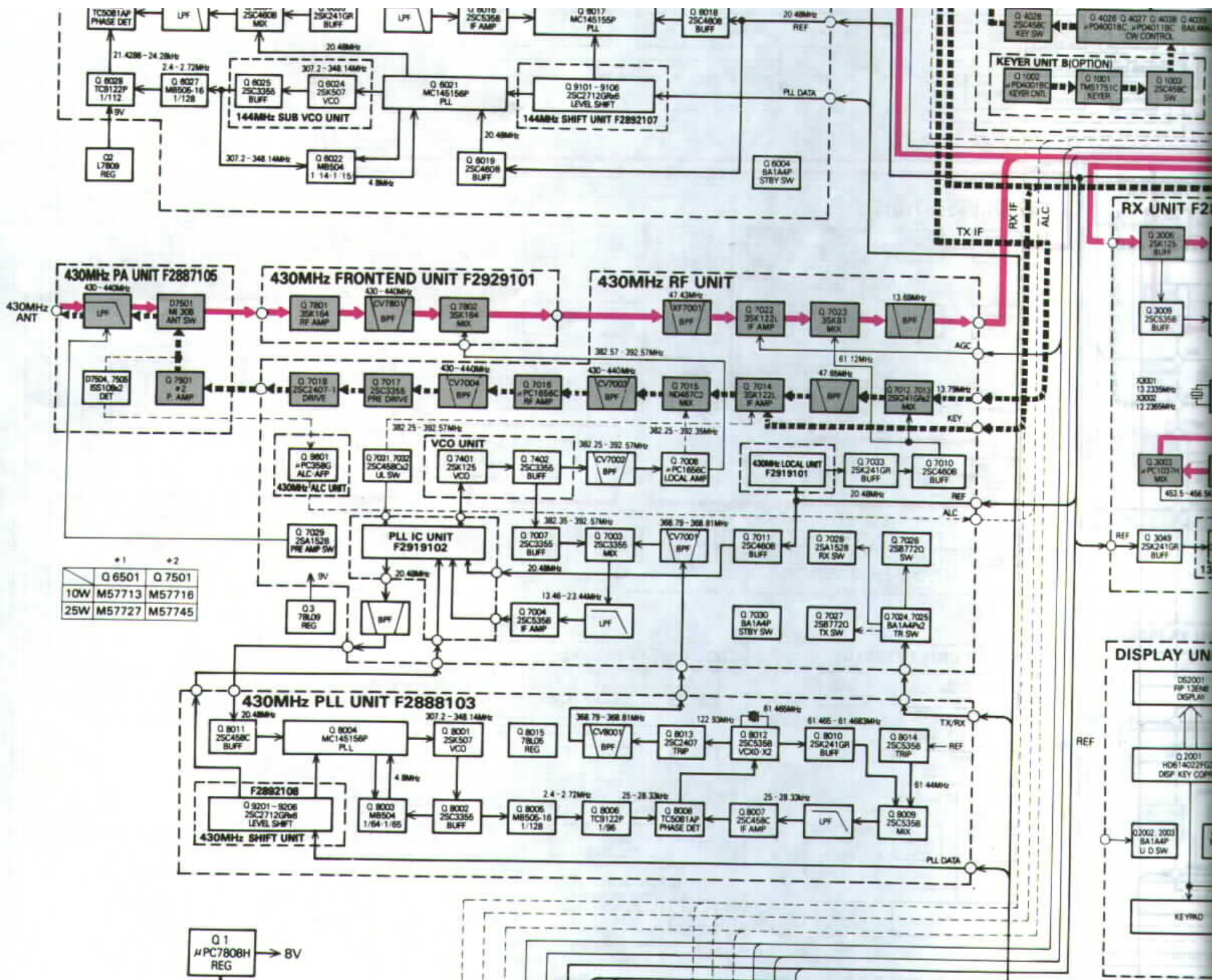


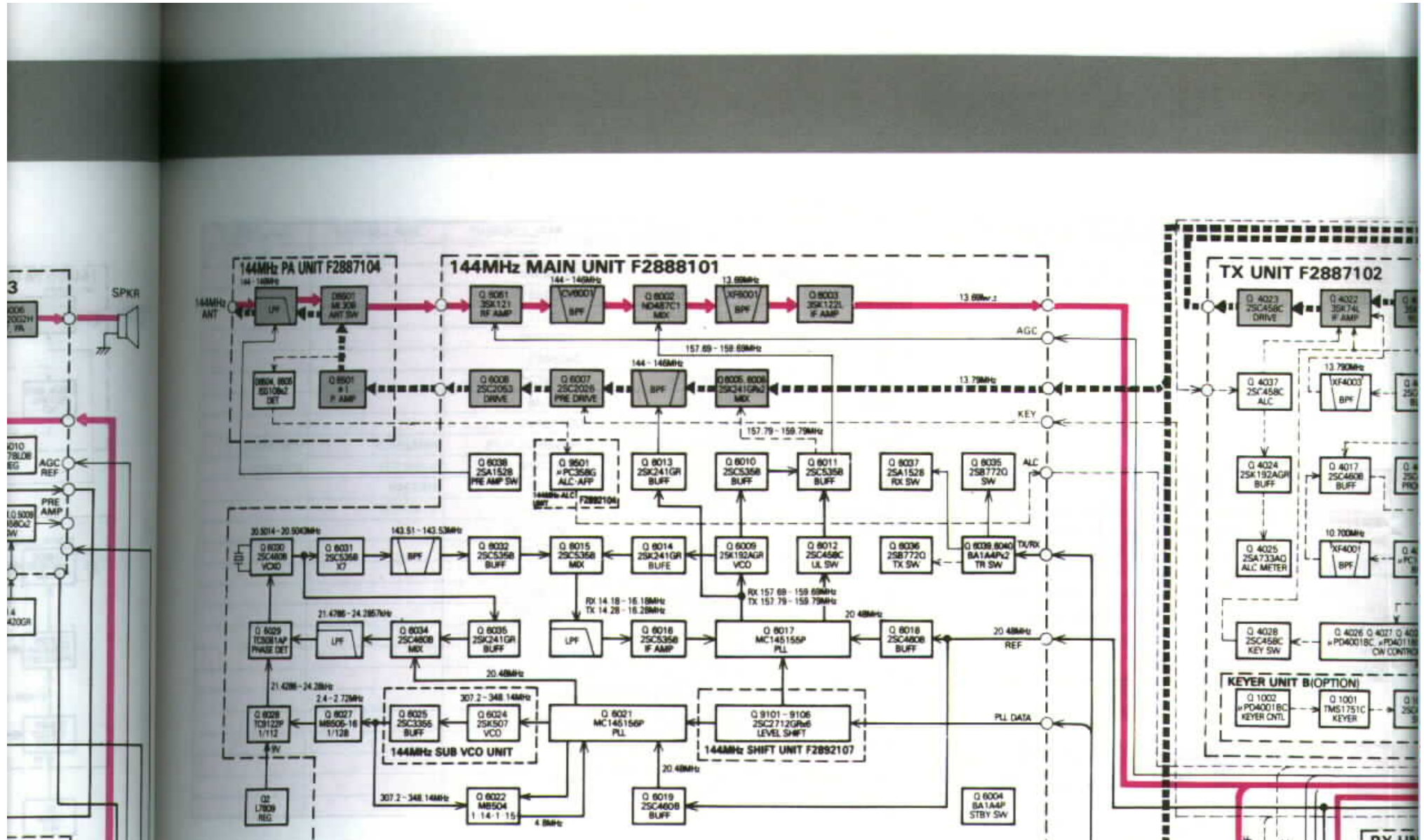
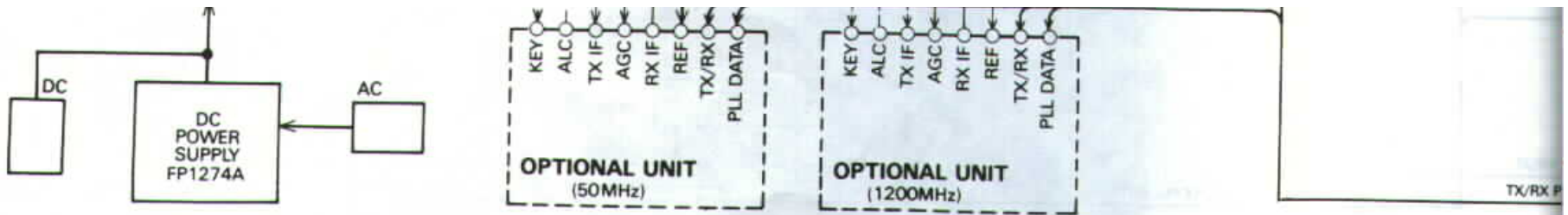


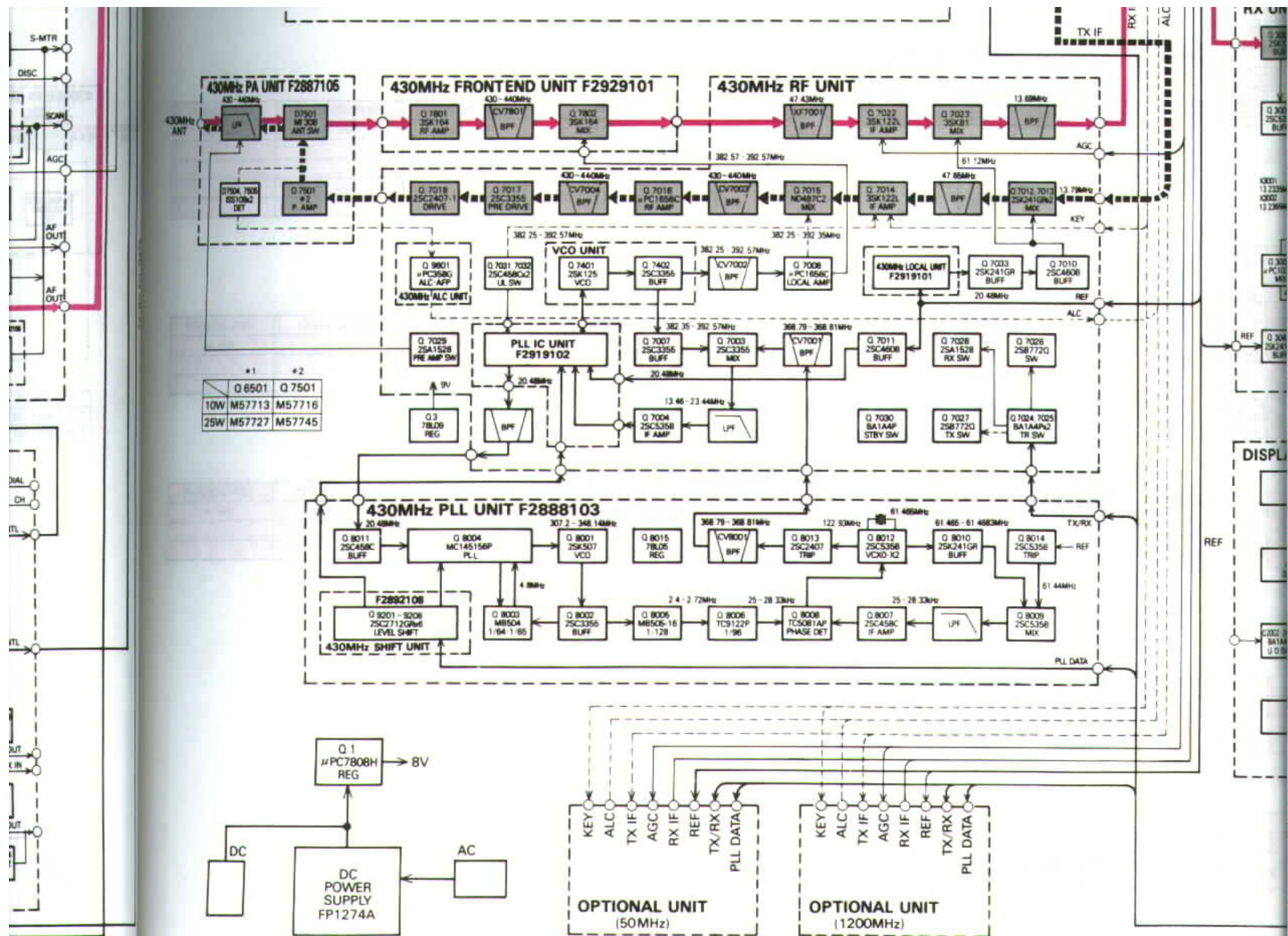


SIGNAL TRACING (CW MODE)



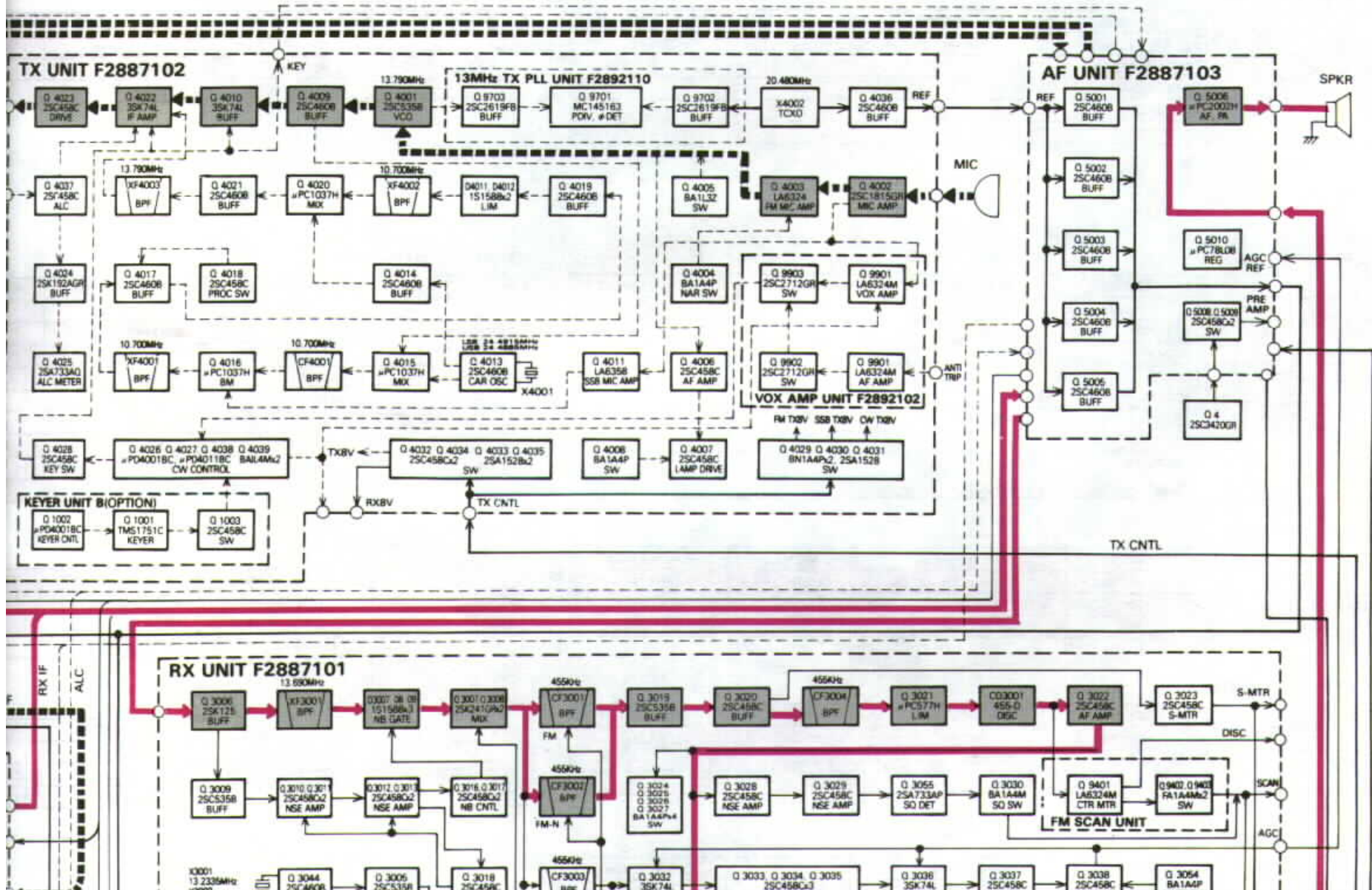


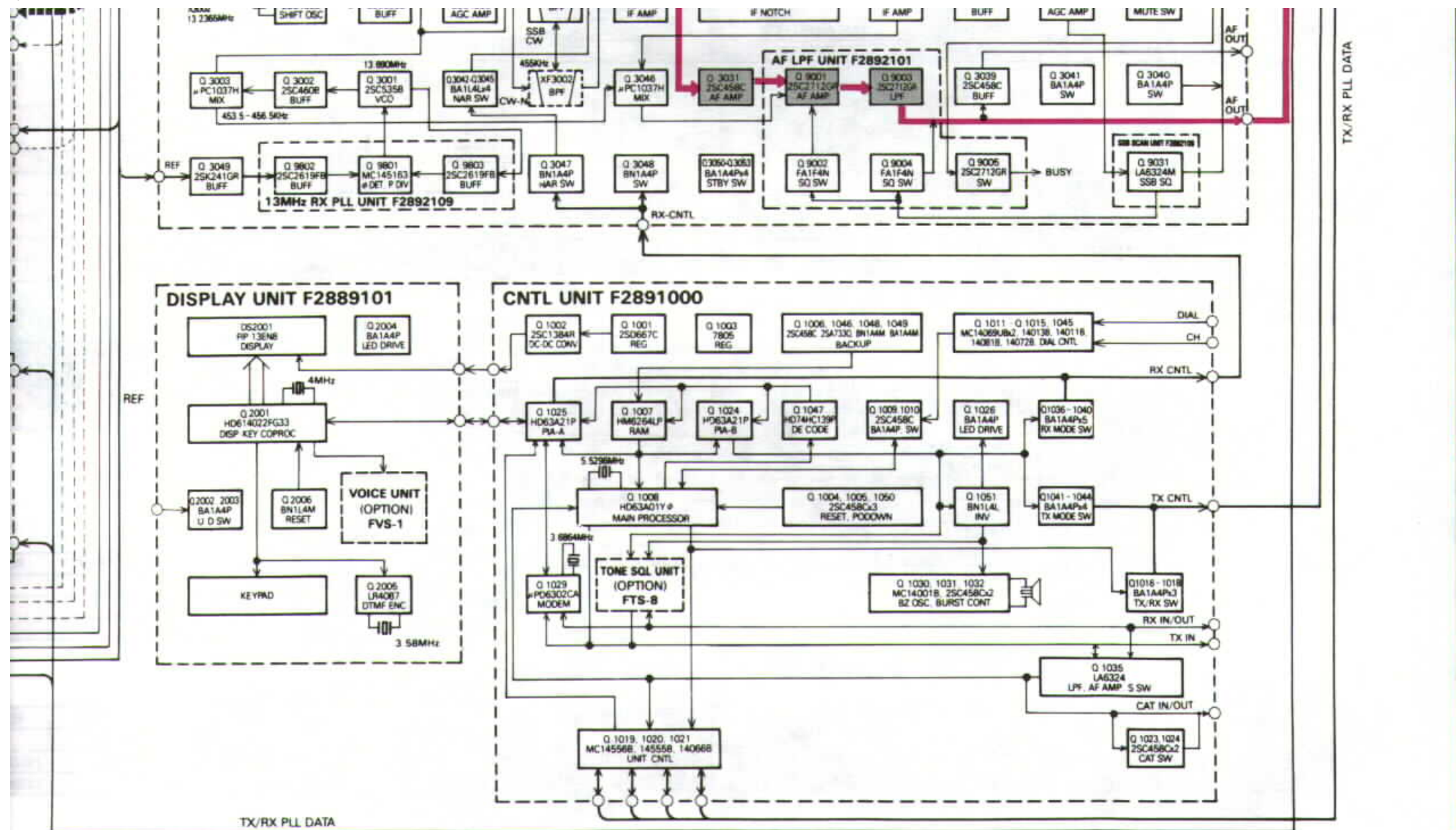




	#1	#2
10W	M57713	M57716
25W	M57727	M57745

SIGNAL TRACING (FM MODE)





REPLACEMENT	REPLACEMENT	REPLACEMENT
Part No.	Part No.	Part No.
25C945AP		
G3309451P		

REPLACEMENT	REPLACEMENT	REPLACEMENT
Part No.	Part No.	Part No.
2SA715C		
G3107150C		
25C945AP		
G3309451P		
1SS53		
G2090027		
1SS53T1		
G2060004		

REPLACEMENT	REPLACEMENT	REPLACEMENT
Part No.	Part No.	Part No.
MC2838-T14-2		
G2070024		

REPLACEMENT	REPLACEMENT	REPLACEMENT
Part No.	Part No.	Part No.
25C1623 L6/L7	25C2812 L6/L7	25C2462 LC/LD
G3316237 F/G	G3328127 F/G	G3324627 C/D

REPLACEMENT	REPLACEMENT	REPLACEMENT
Part No.	Part No.	Part No.
2SA715C		
G3107150C		
25C945AP		
G3309451P		
1SS53		

◎ CNTL UNIT

Symbol No.	ORIGINAL	REPLACEMENT	REPLACEMENT	REPLACEMENT
	Part No.	Part No.	Part No.	Part No.
Q1004,1005,1006,1009, 1002,1023,1050	25C458C	25C945AP		
	G3304580C	G3309451P		
Q1002	25C1384R	2SD6670		
	G3313840R	G306670C		
Q1049	BA1A4M	25C3402		
	G3090074	G3334020		
Q1048	BN1A4M	2SA1348		
	G3090081	G3113480		
Q1007	HM6264ALP-12	HM6264ALP-15	HM6264LP	HM6264ALP-II
	G1090878	G1090879	G1090791	G1090880
Q1035	LA6324	μPC324C	M5224P	
	G1090646	G1090230	G1090757	
Q1030	MC14001BCP	μPD4001-BC		
	G1090027	G1090278		
Q1014	MC14011BCP	μPD4011BC		
	G1090068	G1090282		
Q1013	MC14013BCP	μPD4013BC		
	G1090067	G1090280		
Q1021	MC14066BCP	μPD4066BC		
	G1090257	G1090283		
Q1015	MC14081BCP	μPD4081BC		
	G1090053	G1090658		
Q1003	μPC7805H	L7805		
	G1090299	G1090776		
D1005,1006,1007,1008, 1009,1010,1011,1012	1SS270	1SS53		
	G2090408	G2090027		

◎ DISPLAY UNIT

Symbol No.	ORIGINAL	REPLACEMENT	REPLACEMENT	REPLACEMENT
	Part No.	Part No.	Part No.	Part No.
Q2006	BN1L4M	2SA1345		
	G3090084	G3113450		
Q2010	1SS270	1SS53		
	G2090408	G2090027		

◎ VR C UNIT

Symbol No.	ORIGINAL	REPLACEMENT	REPLACEMENT	REPLACEMENT
	Part No.	Part No.	Part No.	Part No.
D201	1SS270	1SS53		
	G2090408	G2090027		

G2090027		
1SS53T1		
G2060002		

REPLACEMENT	REPLACEMENT	REPLACEMENT
Part No.	Part No.	Part No.
MC2836-T14-2		
G2070024		

REPLACEMENT	REPLACEMENT	REPLACEMENT
Part No.	Part No.	Part No.
1SS53		
G2090027		

REPLACEMENT	REPLACEMENT	REPLACEMENT
Part No.	Part No.	Part No.
25C1623 L6/L7	25C2812 L6/L7	25C2462 LG/LD
G3316237 F/G	S3328127 F/G	G3324627 C/D

○ SW A UNIT

Symbol No.	ORIGINAL	REPLACEMENT	REPLACEMENT	REPLACEMENT
	Part No.	Part No.	Part No.	Part No.
D301	1SS270	1SS53		
	G2090408	G2090027		

SEMICONDUCTOR CROSS-REFERENCE

○ MAIN CHASSIS

Symbol No.	ORIGINAL	REPLACEMENT	REPLACEMENT	REPLACEMENT
	Part No.	Part No.	Part No.	Part No.
Q4	25C3420GR	25D1667		
	G3334200G	G3416670		
Q1	μPC7808H	L7808		
	G1090294	G1090777		

○ AF UNIT

Symbol No.	ORIGINAL	REPLACEMENT	REPLACEMENT
	Part No.	Part No.	Part No.
Q5008.5009	25C458C	25C945AP	
	G3304580C	G3309451P	

○ RX UNIT

Symbol No.	ORIGINAL	REPLACEMENT	REPLACEMENT	REPLACEMENT
	Part No.	Part No.	Part No.	Part No.
Q3030	BA1A4M	25C3402		
	G3090074	G3334020		
D3006,3006,3028,3030, 3034,3035,3037,3038, 3039,3040,3041,3042, 3043,3044,3045,3046, 3047,3049,3050,3051, 3052	1SS270	1SS53		
	G2090408	G2090027		
D3036,3048	1SS270TJ	1SS53T1		
	G2060004	G2060002		

○ AF LPF UNIT

Symbol No.	ORIGINAL	REPLACEMENT	REPLACEMENT	REPLACEMENT
	Part No.	Part No.	Part No.	Part No.
Q9001,9002,9003, 9004,9005	25C2712GR TE85R	25C1623 L6/L7	25C2812 L6/L7	25C2462 LD/LD
	G3327127G	G3316237 F/G	G3328127 F/G	G3324627 C/D

○ FM SCAN UNIT

Symbol No.	ORIGINAL	REPLACEMENT	REPLACEMENT	REPLACEMENT
	Part No.	Part No.	Part No.	Part No.
D9401	1SS184 TE85R	DCB015-TA	MC2838-T14-2	
	G2070009	G2070012	G2070018	

○ SSB SCAN UNIT

Symbol No.	ORIGINAL	REPLACEMENT	REPLACEMENT	REPLACEMENT
	Part No.	Part No.	Part No.	Part No.
D9301	1SS184 TE85R	DCB015-TA	MC2838-T14-2	
	G2070009	G2070012	G2070018	

○ TX UNIT

Symbol No.	ORIGINAL	REPLACEMENT	REPLACEMENT	REPLACEMENT
	Part No.	Part No.	Part No.	Part No.
Q4032,4034	25C458C	25C945AP		
	G3304580C	G3309451P		
Q4005	BA1L3Z	25C3901		
	G3090077	G3339010		
Q4038,4039	BA1L4M	25C3399		
	G3090080	G3333990		
Q4003	LA6324	μPC324C	M5224P	
	G1090646	G1090230	G1090757	
Q4026	μPD4001BC	MC14001BCP		
	G1090278	G1090027		

○ 144MHz MAIN UNIT

Symbol No.	ORIGINAL	REPLACEMENT	REF
	Part No.	Part No.	
Q6035,6036	25B7720	25A715C	
	G32077200	G3107150C	
Q6012	25C458C	25C945AP	
	G3304580C	G3309451P	
D6001,6014,6019,6020, 6021,6022,6023,6024, 6025,6026,6027,6028, 6029,6030,6031	1SS270	1SS53	
	G2090408	G2090027	
D6032	1SS270TJ	1SS53T1	
	G2060004	G2060004	

○ 144MHz ALC UNIT

Symbol No.	ORIGINAL	REPLACEMENT	REF
	Part No.	Part No.	
D9501,9502	1SS181 TE85R	MC2838-T14-2	
	G2070001	G2070024	

○ 144MHz SHIFT UNIT

Symbol No.	ORIGINAL	REPLACEMENT	REF
	Part No.	Part No.	
Q9101,9102,9103, 9104,9105,9106	25C2712GR TE85R	25C1623 L6/L7	25C281
	G3327127G	G3316237 F/G	G33281

○ 430MHz RF UNIT

Symbol No.	ORIGINAL	REPLACEMENT	REF
	Part No.	Part No.	
Q7026,7027	25B7720	25A715C	
	G32077200	G3107150C	
Q7031,7032	25C458C	25C945AP	
	G3304580C	G3309451P	
D7003,7014,7015, 7016,7017,7018	1SS270	1SS53	
	G2090408	G2090027	
D7006,7011	1SS270TJ	1SS53T1	
	G2060004	G2060002	

○ 430MHz ALC UNIT

Symbol No.	ORIGINAL	REPLACEMENT	REF
	Part No.	Part No.	
D9601,9602	1SS181 TE85R	MC2838-T14-2	
	G2070001	G2070024	

Q4027	#PD4011BC	MC14011BCP		
	G1090282	G1090068		
D4003,4004,4006,4007, 4008,4014,4017,4018, 4019,4022	1SS270	1SS53		
	G2090408	G2090027		
D4023	1SS270TJ	1SS53T1		
	G2060004	G2060002		

◎ 430MHz PLL UNIT

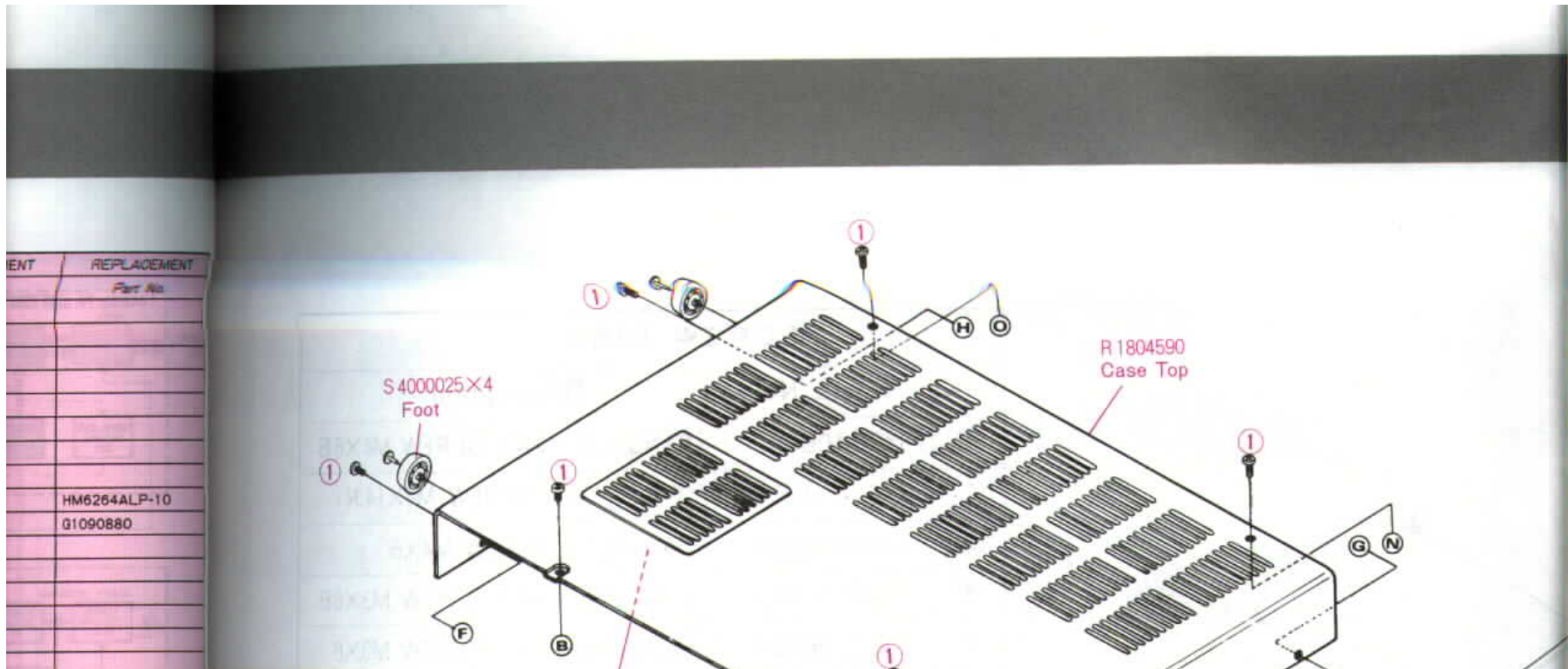
Symbol No.	ORIGINAL	REPLACEMENT	REF
	Part No.	Part No.	
D8004,8005,8006,8007, 8008,8009,8010,8011	1SS270	1SS53	
	G2090408	G2090027	

◎ VOX UNIT

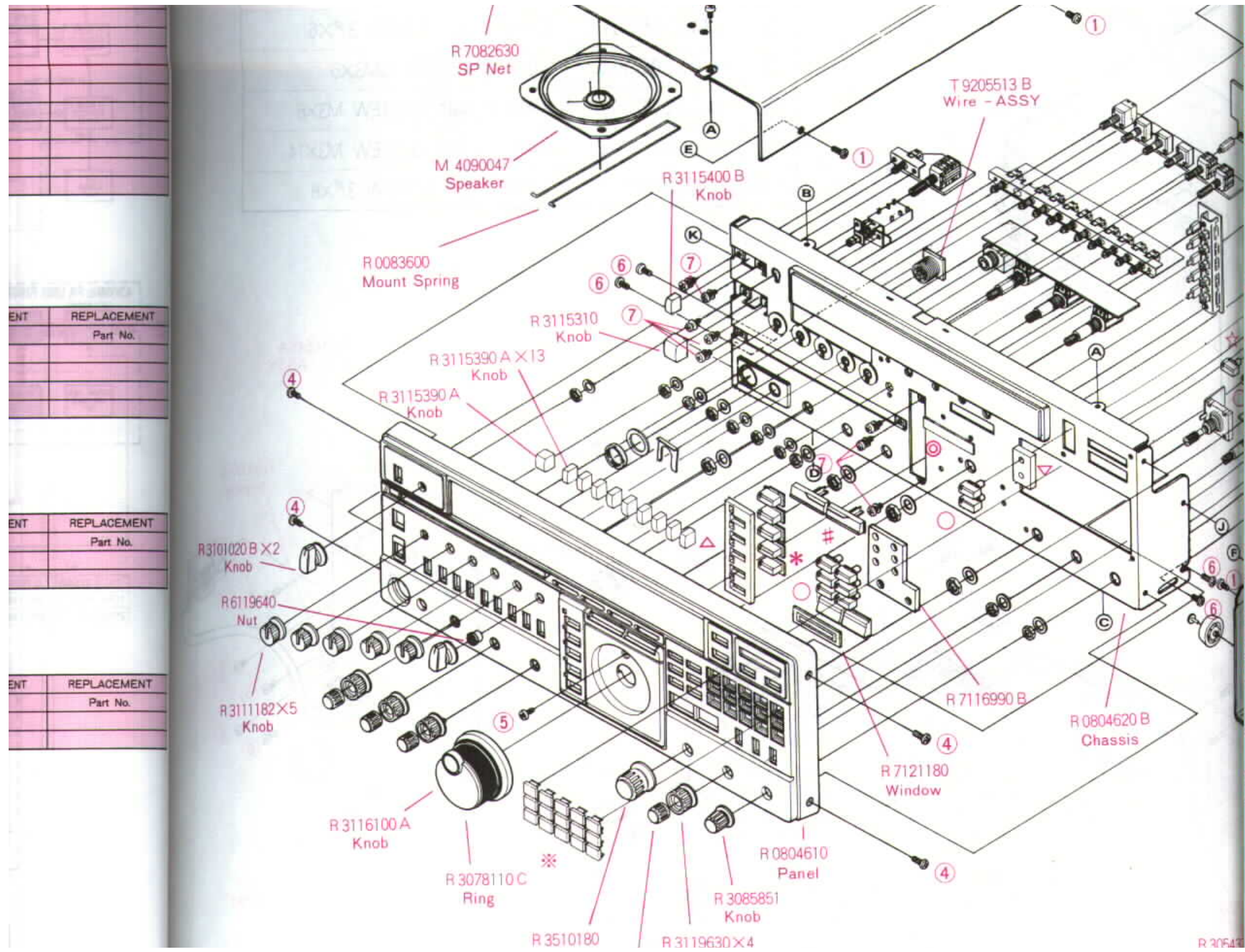
Symbol No.	ORIGINAL	REPLACEMENT	REPLACEMENT	REPLACEMENT
	Part No.	Part No.	Part No.	Part No.
Q9902,9903	2SC2712GR TE85R	2SC1623 L6/L7	2SC2812 L6/L7	2SC2462 LC/LD
	G3327127G	G3316237 F/O	G3328127 F/O	G3324627 O/D

◎ 430MHz SHIFT UNIT

Symbol No.	ORIGINAL	REPLACEMENT	REF
	Part No.	Part No.	
Q9201,9202,9203, 9204,9205,9206	2SC2712GR TE85R	2SC1623 L6/L7	2SC2812 L6/L7
	G3327127G	G3316237 F/O	G3328127 F/O



REPLACEMENT
Part No.
HM6264ALP-10
G1090880



REPLACEMENT	REPLACEMENT
Part No.	Part No.

REPLACEMENT	REPLACEMENT
Part No.	Part No.

REPLACEMENT	REPLACEMENT
Part No.	Part No.

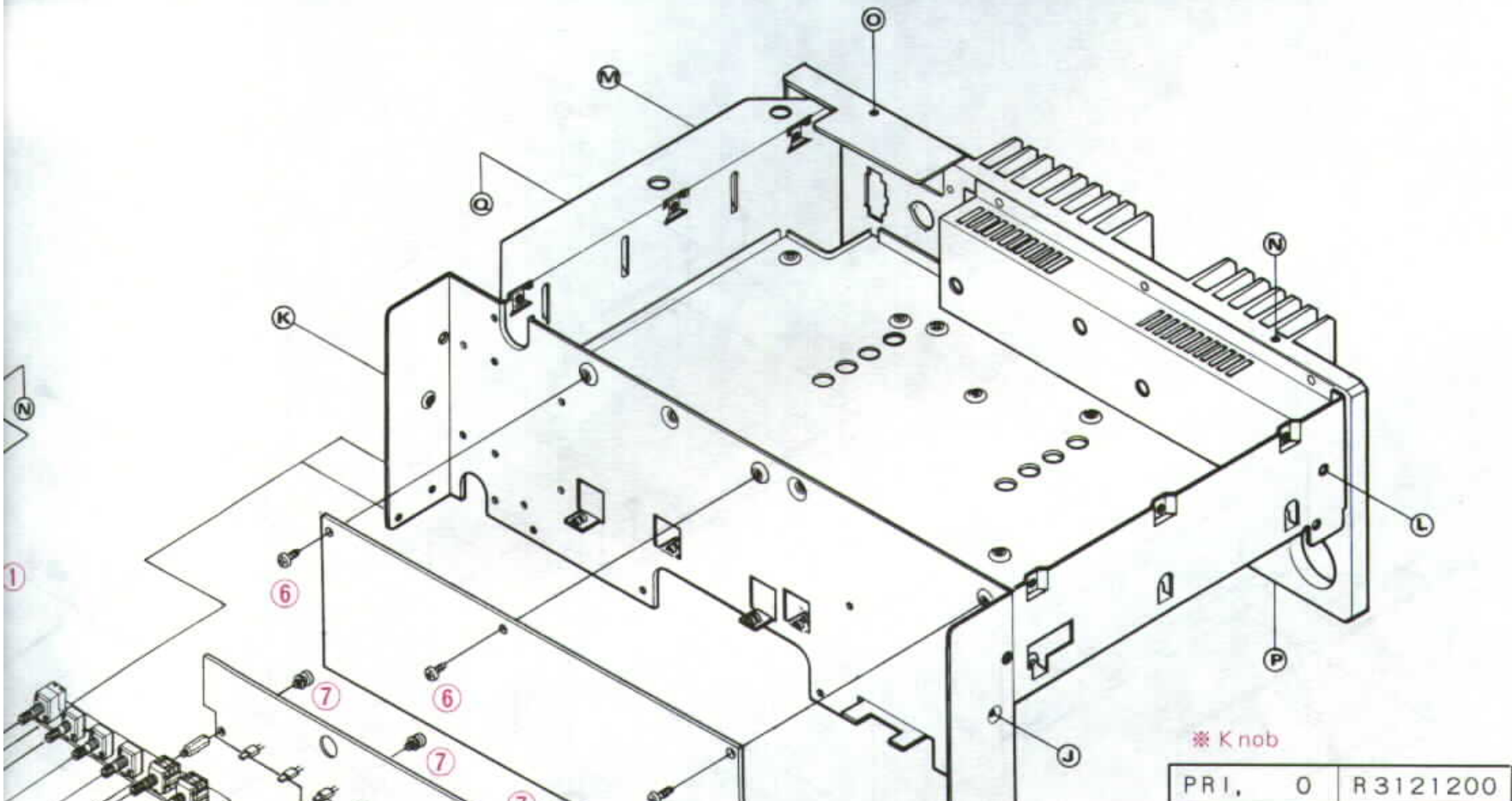
Knob / Knob

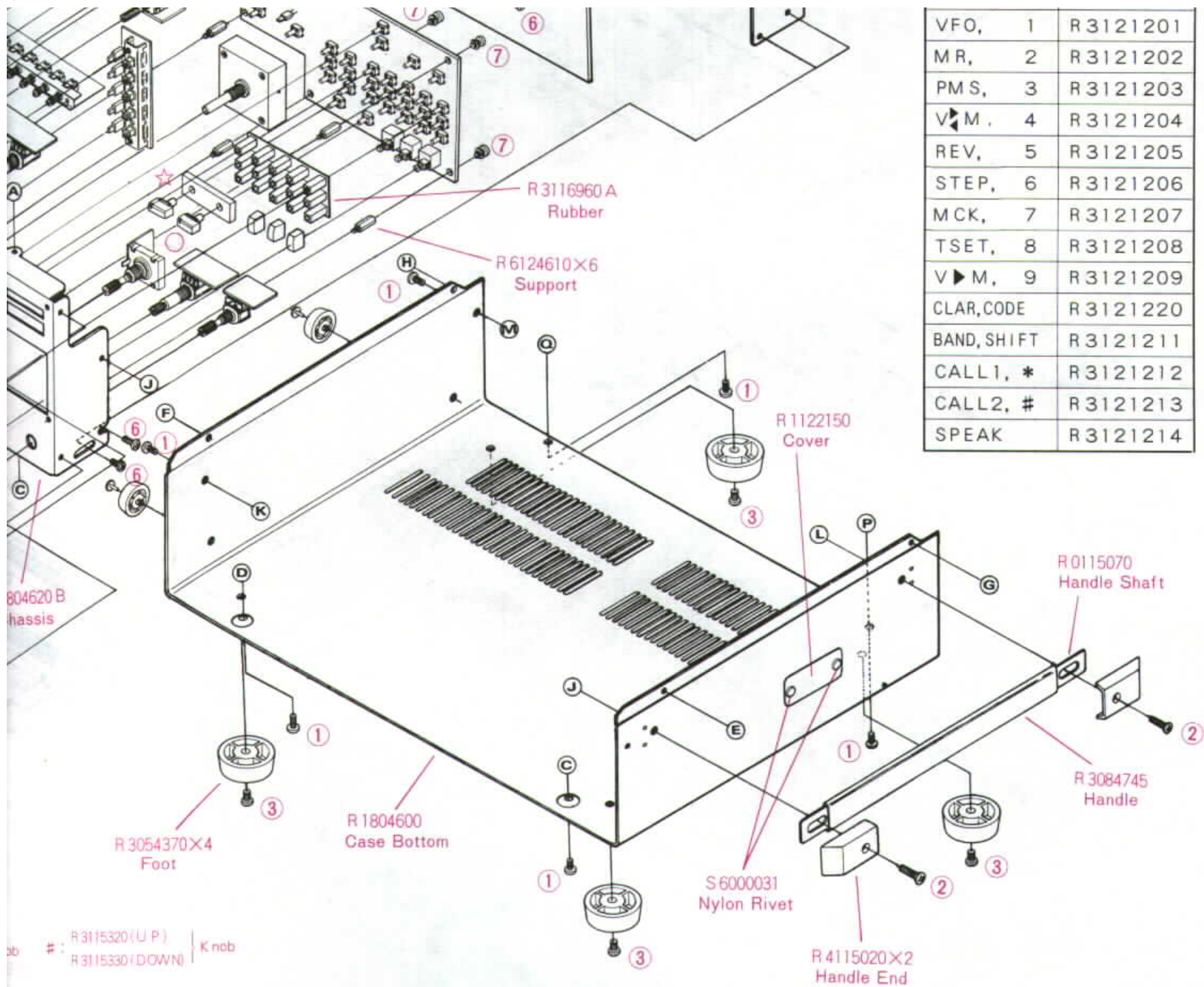
R1100770 B x4

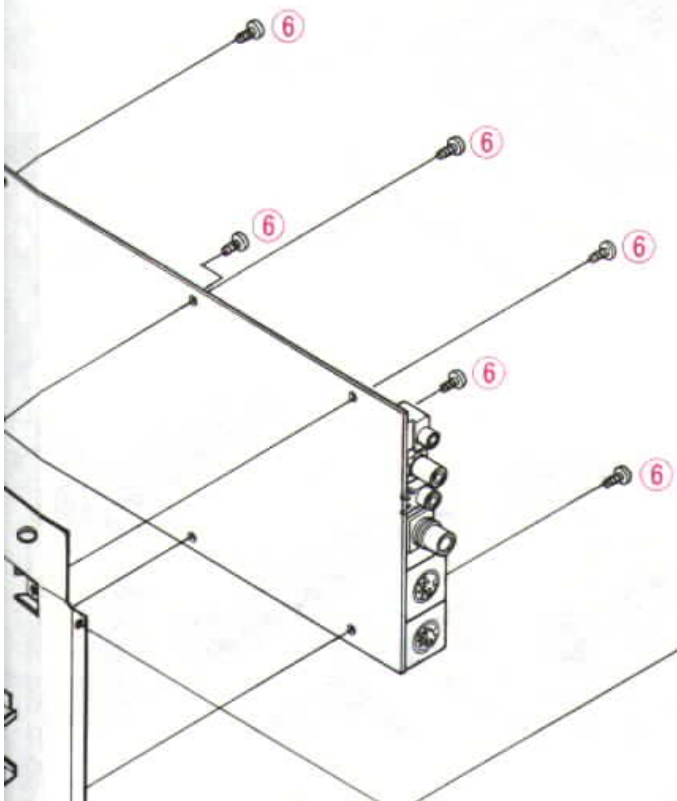
Knob

- △ : R7114200 A Sponge Rubber
- ▽ : R7116970 B Sponge Rubber
- : R3116820 x10 Knob
- : R3115340 (UP) Knob
- # : R3115320 (UP)
- ◎ : R7116980 A Sponge Rubber
- ☆ : R7122620 Sponge Rubber
- * : R3119630 Knob
- : R3115350 (DOWN) Knob
- # : R3115330 (DOWN)

EXPLODED VIEW

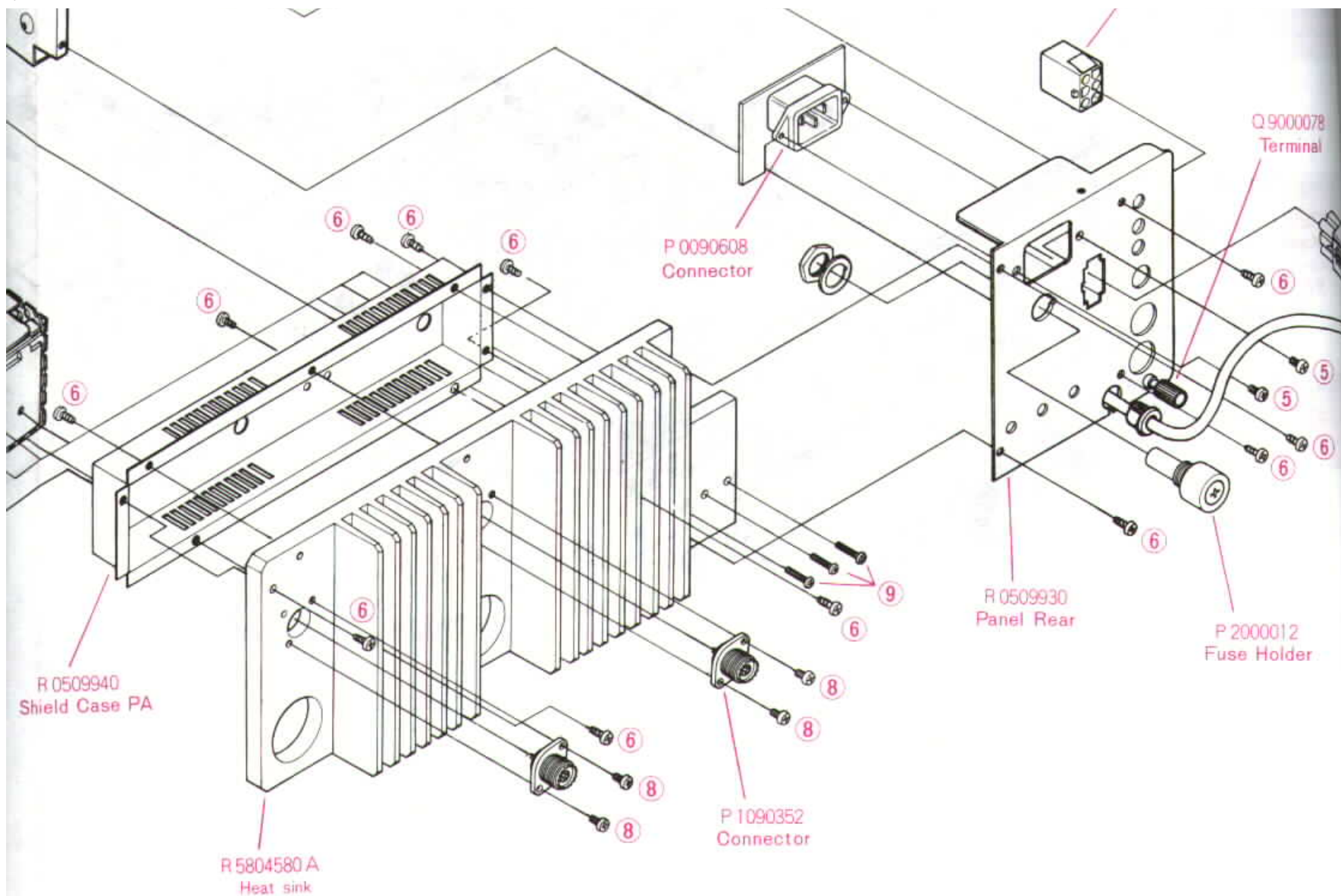




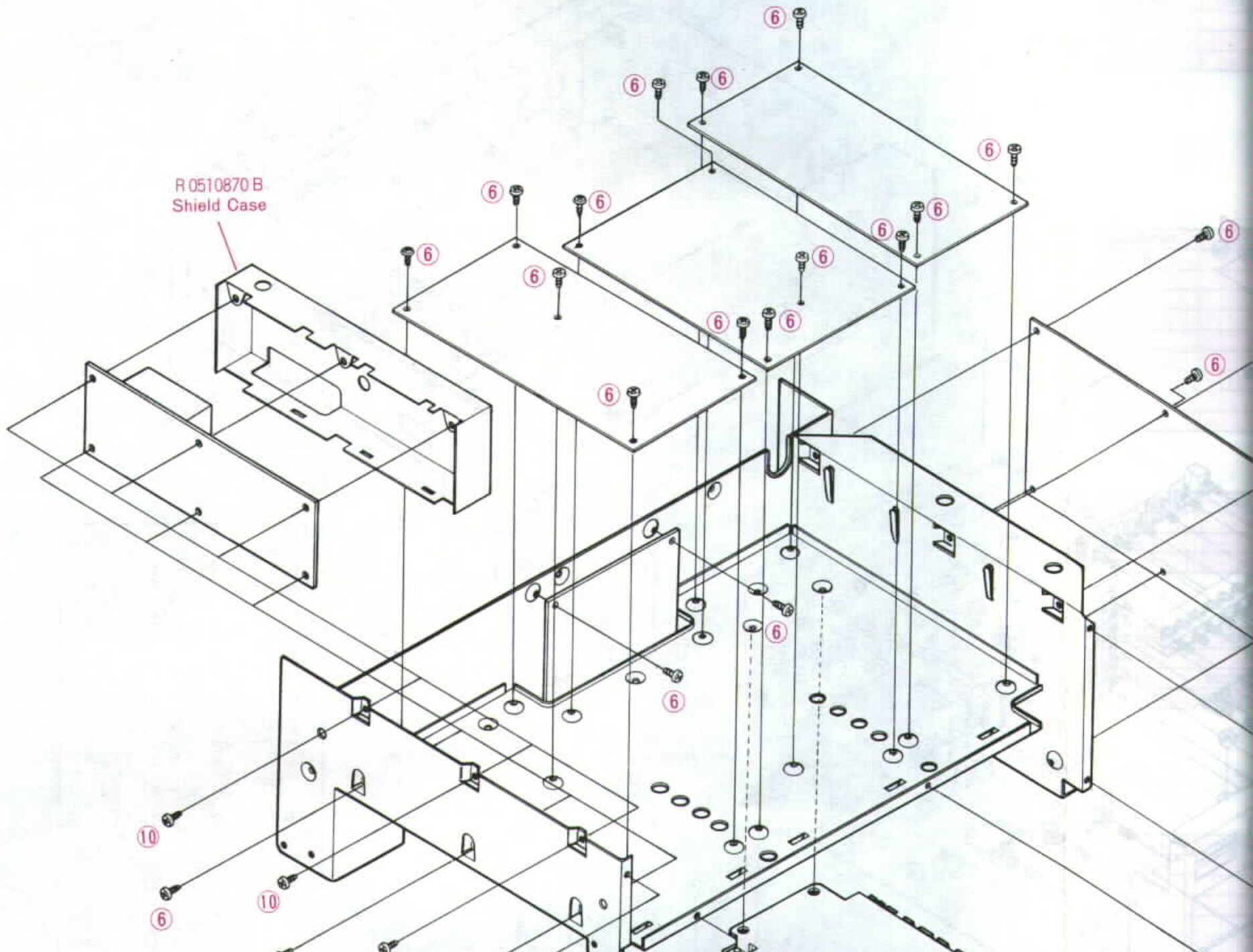


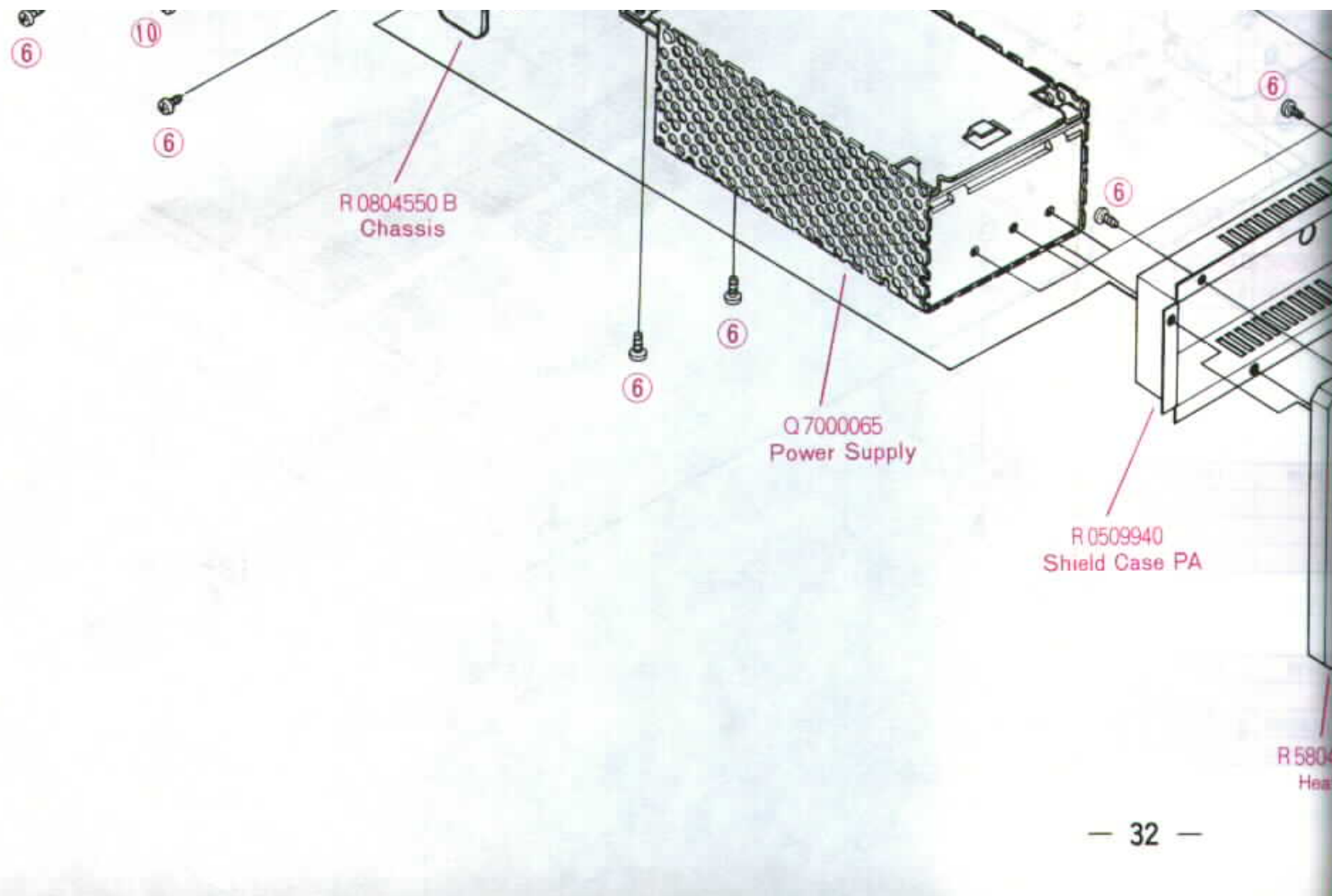
SCREW LIST		
Ret No.	Parts No.	Description
①	U20406007	BINDING HEAD SCREW M4X6B
②	U31414002	OVAL HEAD SCREW M4X14 Ni
③	U00406001	PAN HEAD SCREW M4X6
④	U20306007	BINDING HEAD SCREW M3X6B
⑤	U20306001	BINDING HEAD SCREW M3X6
⑥	U42306201	TAPPING SCREW 3 ϕ X6
⑦	U02306001	SEMS SCREW SM3X6
⑧	U00306001	PAN HEAD SCREW M3X6
⑨	U00314001	PAN HEAD SCREW M3X14
⑩	U40308201	TAPPING SCREW 3 ϕ X8

T9205548 A
Wire - ASSY



EXPLODED VIEW

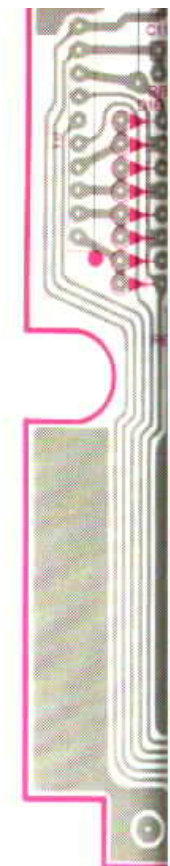
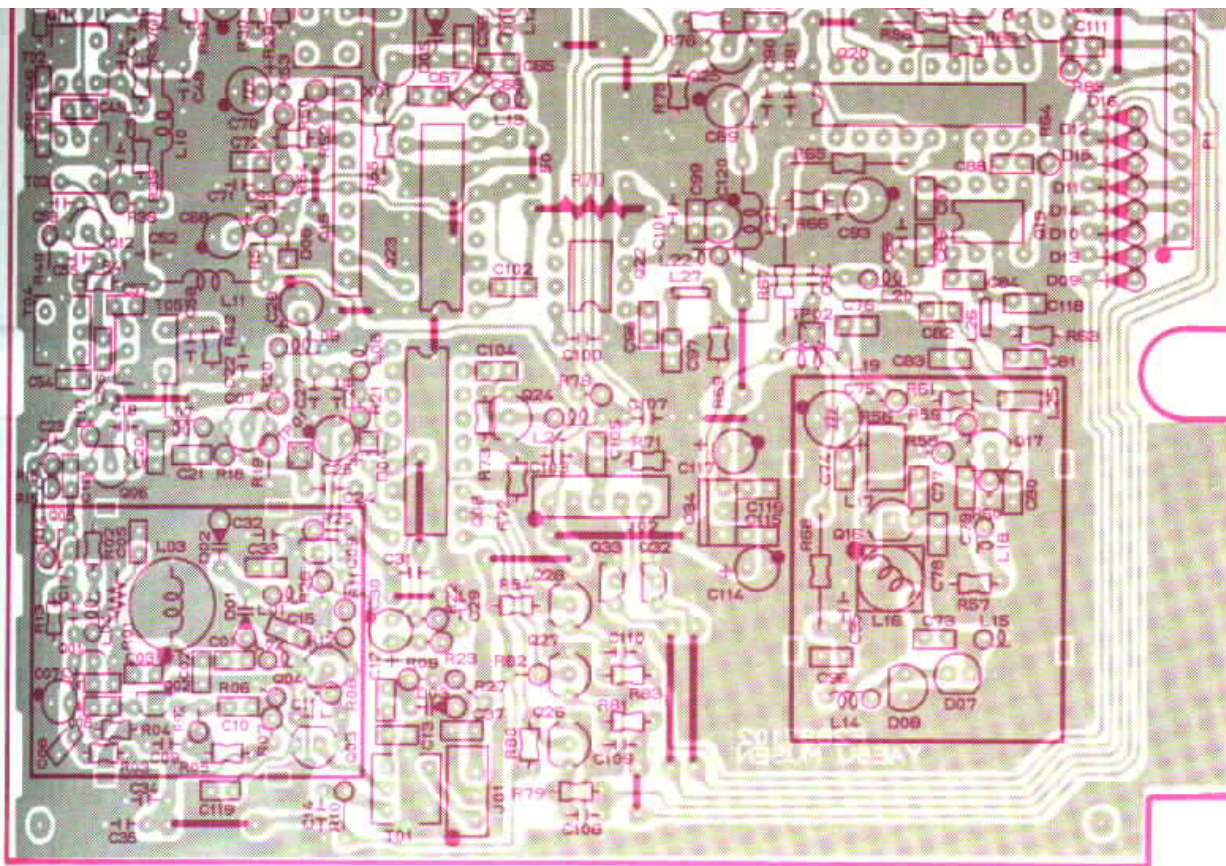




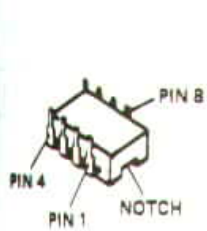
50MHz B

50MHz PLL UNIT (No. 1XXXX)

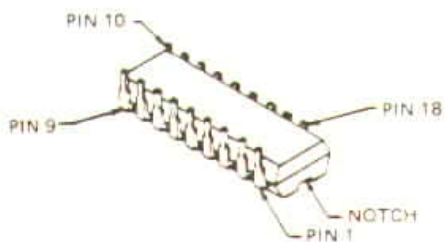




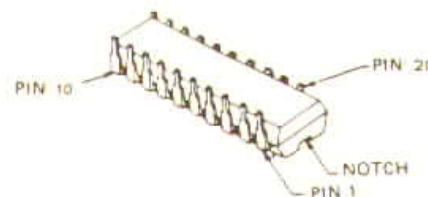
Component side (obverse)



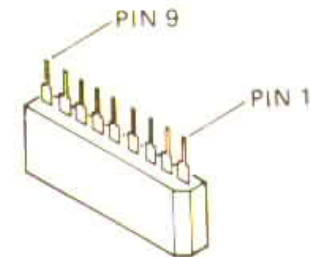
MB504 (Q1019)
MB505-16 (Q1022)



MC145155P (Q1008)
TC9122P (Q1023)



MC145156P (Q1020)



TC5081AP (Q1015)



COMMON



GATE



DRAIN

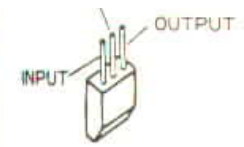


BASE

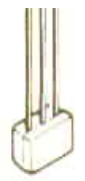


COLLECTOR

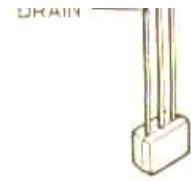
EMITTER



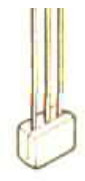
μPC078L05 (Q1034)



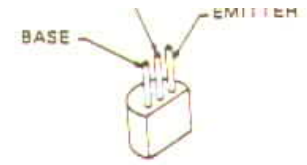
2SK241GR
{Q1009,1013}



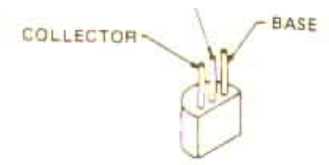
2SK507F (Q1016)



BA1A4P
{Q1032,1033}



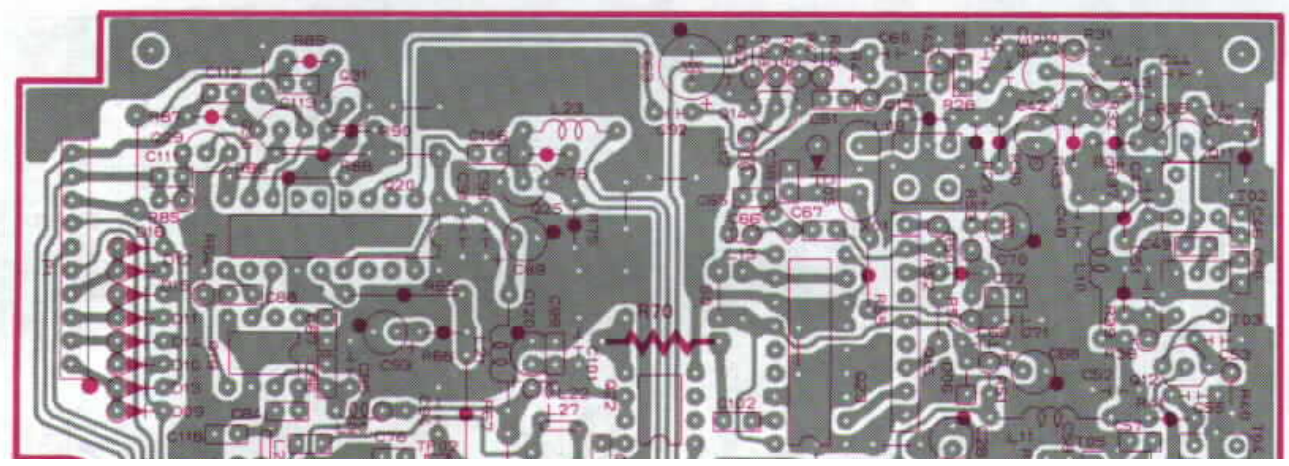
2SC458
{Q1026,1027,1028
1029,1030,1031}

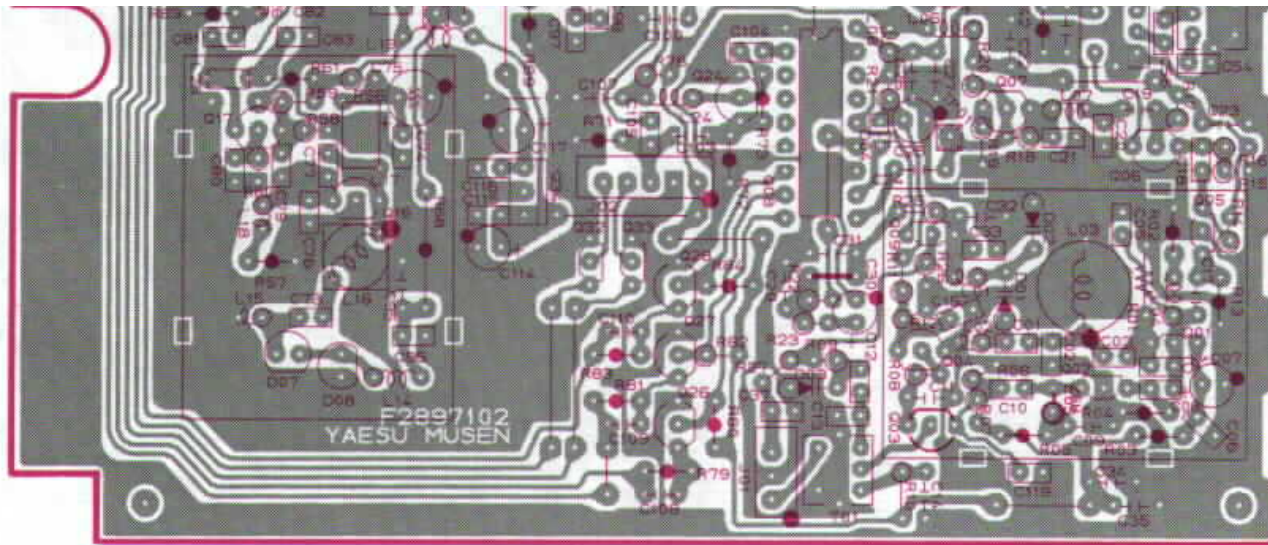


2SC3355 (Q1017)

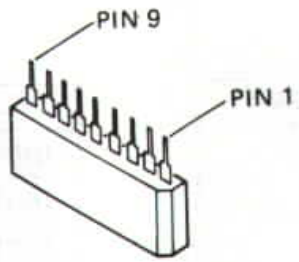
2SC460B
{Q1006,1007,1010
1011,1012,1024
1025
2SC535B (Q1014)}

50MHz BAND MODULE (FEX-736-50) OPTION

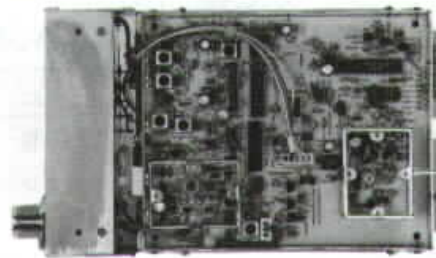




Component side (reverse)

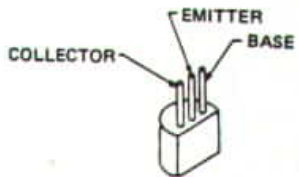


TC5081AP (Q1015)

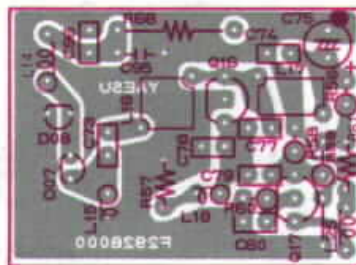


50MHz SUB VCO UNIT

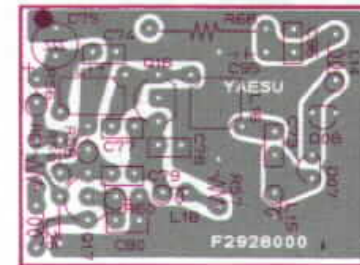
50MHz SUB VCO UNIT (No. 1XXX)



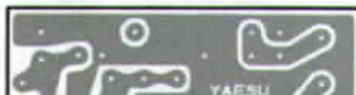
2SC3355 (Q1017)



Component side (obverse)



Component side (reverse)



0
24

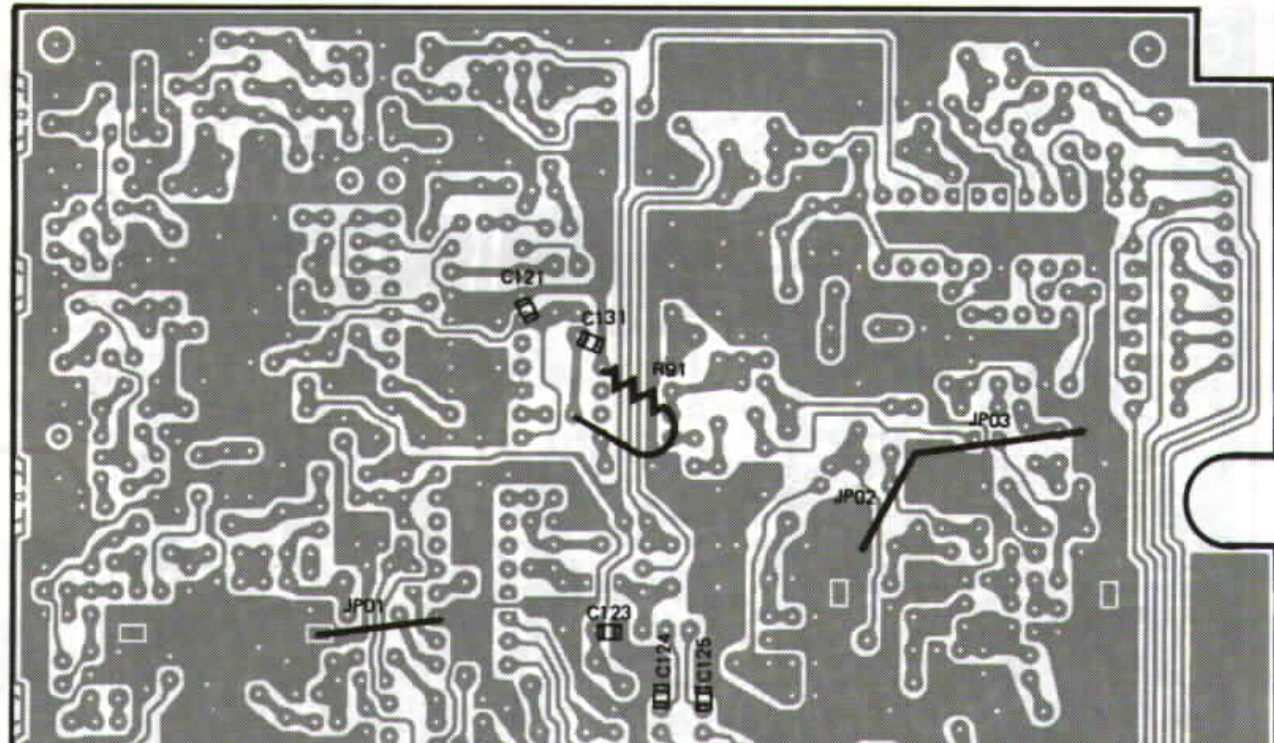


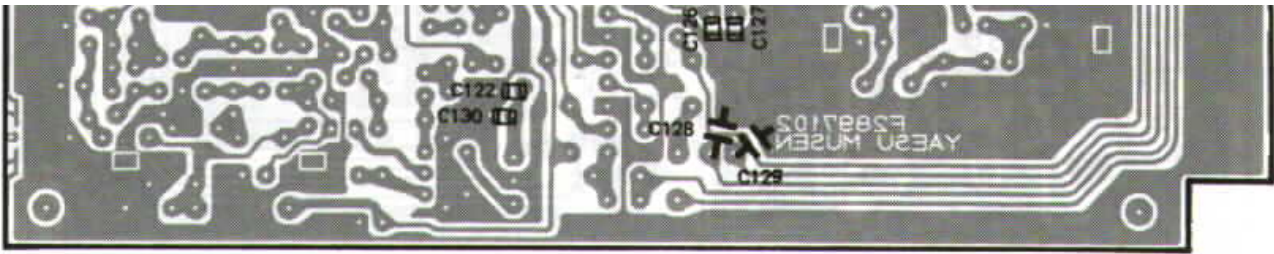
Chip side (obverse)



Chip side (reverse)

OPTION





Solder side (reverse)

se)

DC VOLTS)

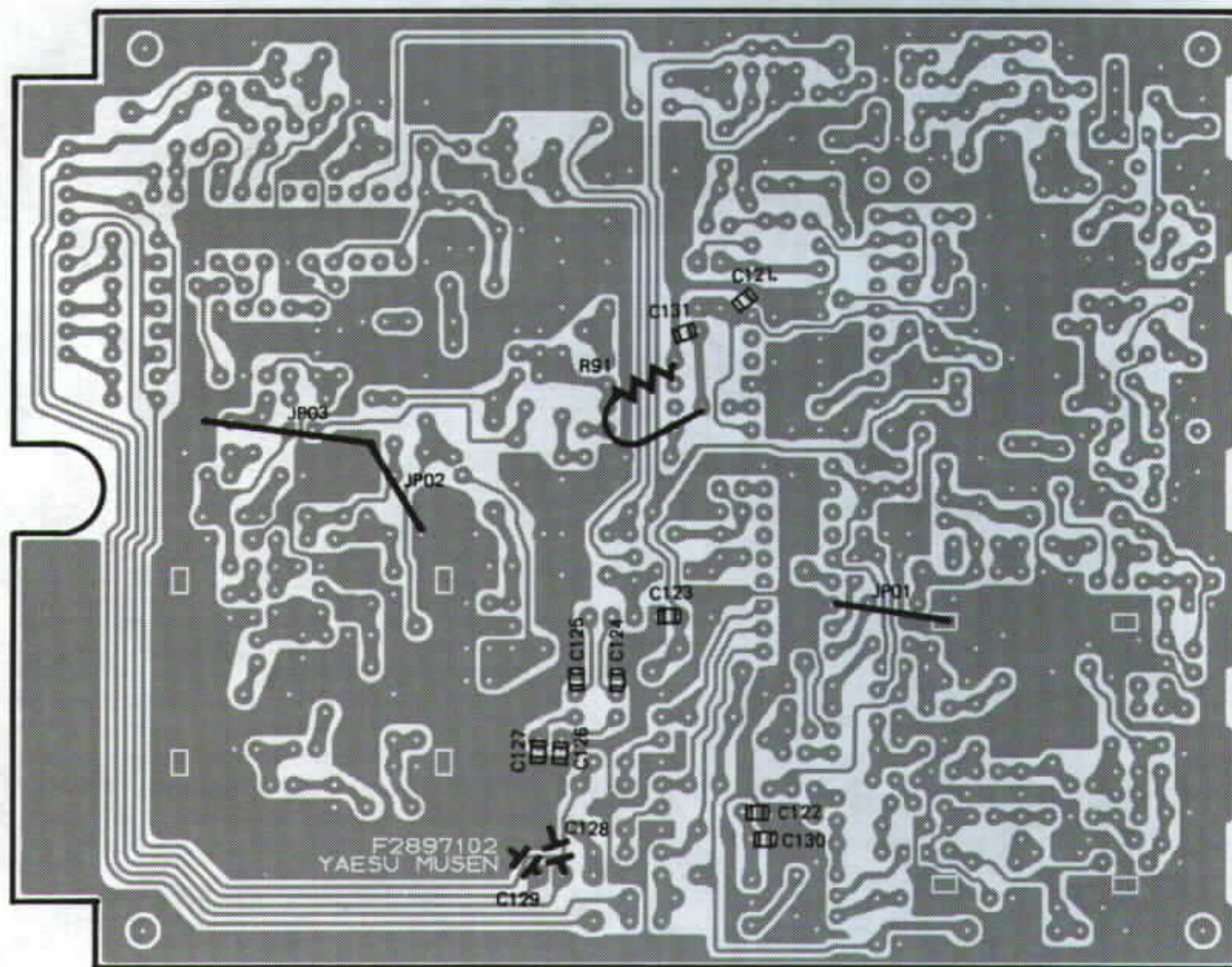
50MHz PLL UNIT IC VOLTAGE CHART

(DC VOLTS)

REMARKS
/TX
/TX

	1(IN)	2(OUT)	3(GND)	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	REMARKS
Q1008	8.57	0	—	—	8.56	5.22	0	8.49	3.92	0.09	0.09	0.09	—	—	—	—	3.97	0			
Q1015	3.32	3.30	2.78	—	7.57	—	3.32	0.79	0												
Q1019	2.53	5.02	0	2.91	—	4.45	—	2.52													
Q1020	0	5.02	—	—	5.03	1.62	0	4.45	—	1.98	0.72	0.07	0.06	0.03	—	—	2.53	—	2.04	5.03	
Q1022	2.46	5.03	5.03	2.70	0	—	—	2.46													
Q1023	7.56	3.11	0	0.02	0.02	7.56	0	0	7.56	0	0	0	0	0	0	0	0	0.79	0		
Q1034	9.00	0	5.01																		

50MHz BAND MODULE (FEX-736-50) OPTION



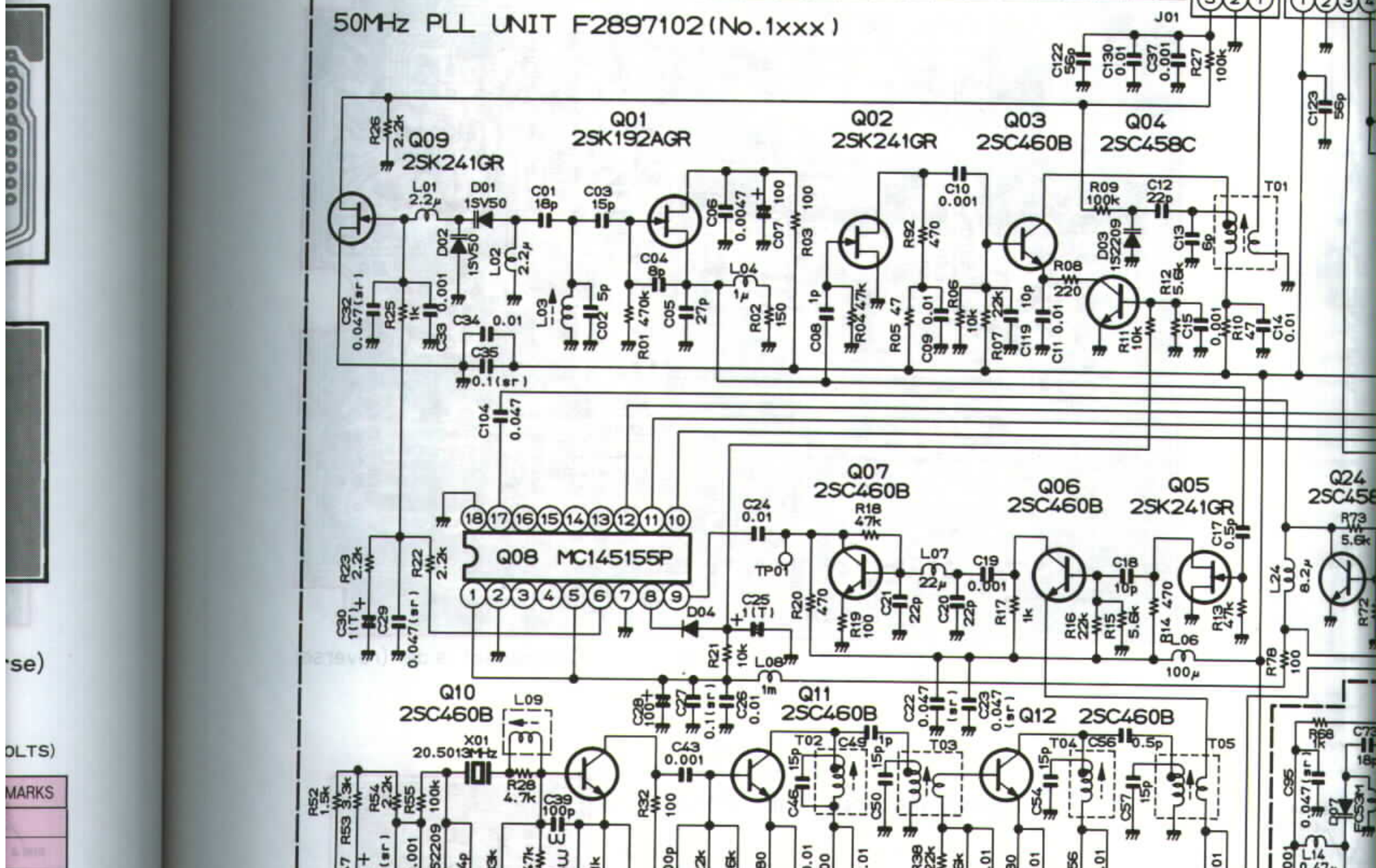
Solder side (obverse)

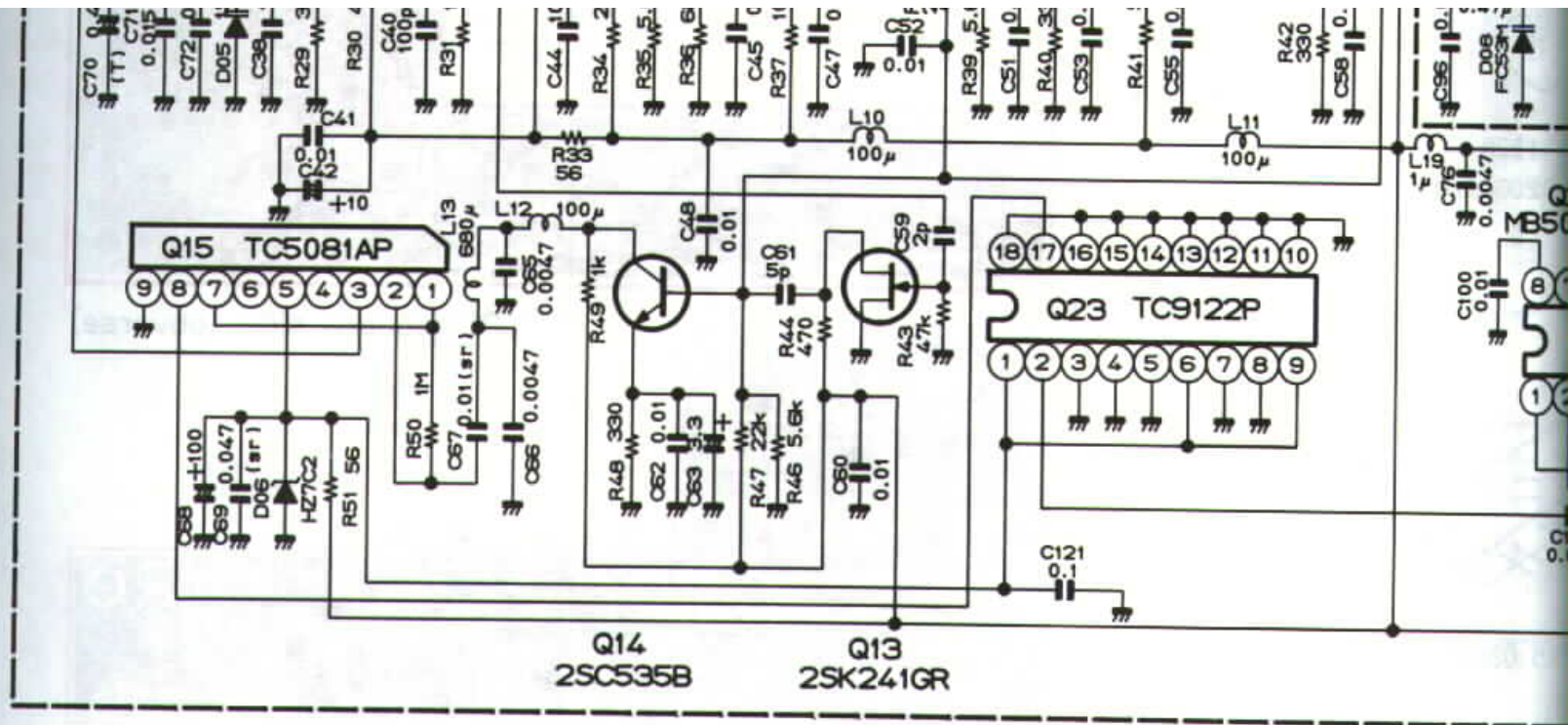
50MHz PLL UNIT VOLTAGE CHART

(DC VOLTS)

	E(S)	O(D)	(G ₁) ^B	(G ₂)	REMARKS		E(S)	O(D)	(G ₁) ^B	(G ₂)	REMARKS
Q1001	0.61	8.53	0			Q1016	0	8.77	1.20		
Q1002	0	3.10	0			Q1017	1.26	7.70	2.00		
Q1003	1.56	8.64	2.23			Q1024	0	5.67	0.72		
Q1004	0	0.07	0.71			Q1025	0	5.67	0.72		
Q1005	0	3.57	0			Q1026	0	0.07	0.67		
Q1006	0.97	5.84	1.64			Q1027	0	0.07	0.67		
Q1007	0.74	5.41	1.46			Q1028	0	0.07	0.67		
Q1009	6.17	8.56	5.38			Q1029	0	0.07	0.67		
Q1010	2.37	7.71	3.00			Q1030	0	0.07	0.67		
Q1011	1.16	8.71	1.73			Q1031	0	0.07	0.67		
Q1012	0.98	8.74	1.67			Q1032	0	0.14/8.79	4.79/0		RX/TX
Q1013	0	4.19	0			Q1033	0	8.73/0.27	4.78/0		RX/TX
Q1014	0.99	5.65	1.70								

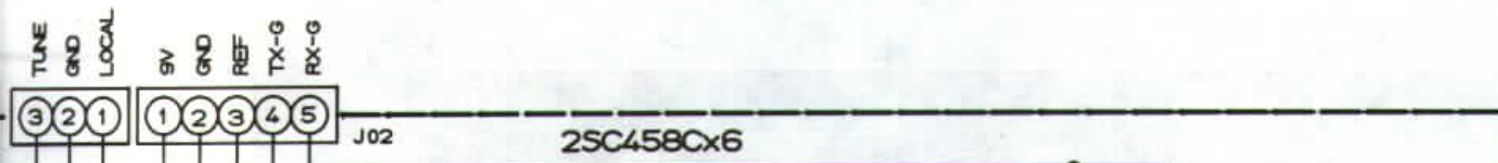
	1(IN)
Q1008	8.57
Q1015	3.32
Q1019	2.53
Q1020	0
Q1022	2.46
Q1023	7.56
Q1034	9.00

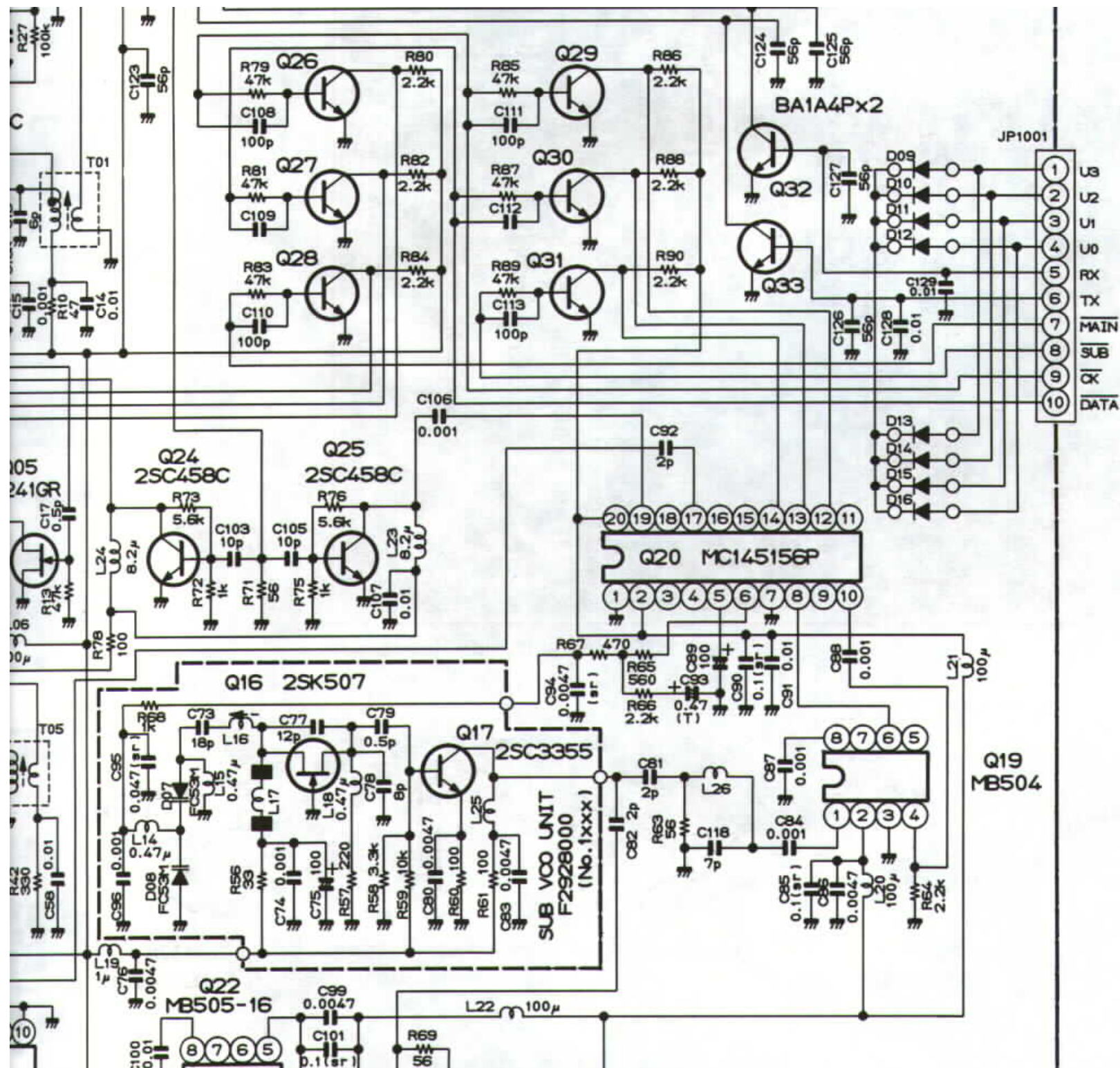


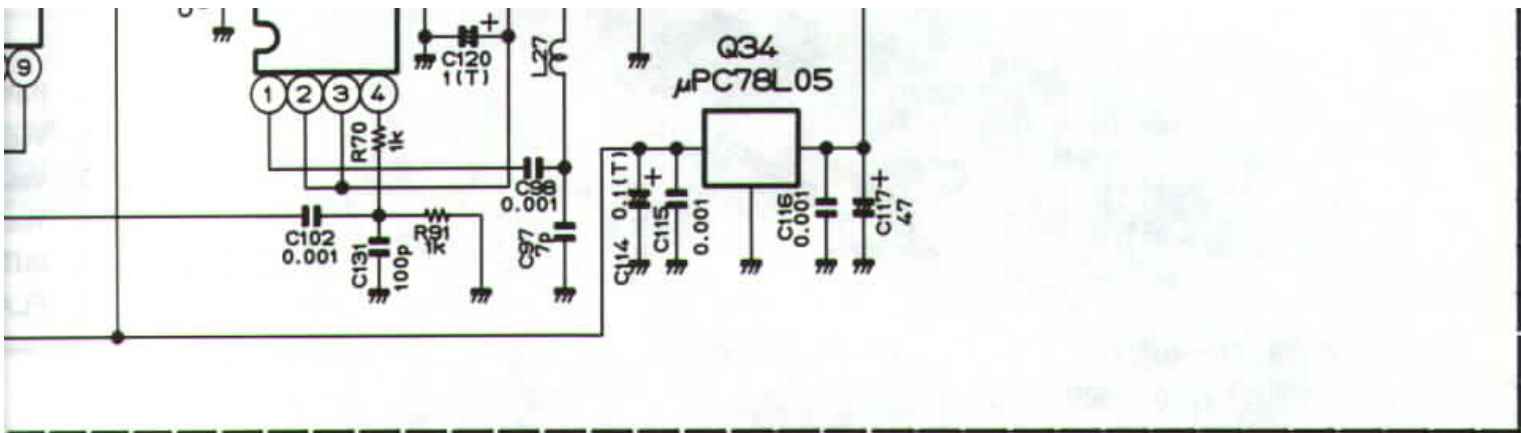


RESISTOR VALUES ARE IN Ω , 1/6W;
 CAPACITOR VALUES ARE IN μ F.
 INDUCTOR VALUES ARE IN HENRIES, UNLESS OTHERWISE NOTED.

50MHz BAND MODULE (FEX-736-50) OPTION



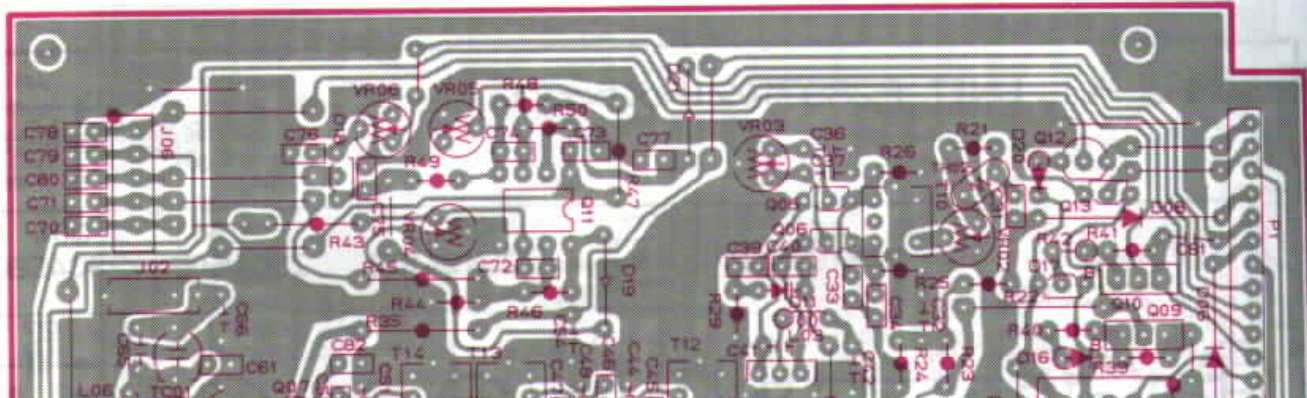


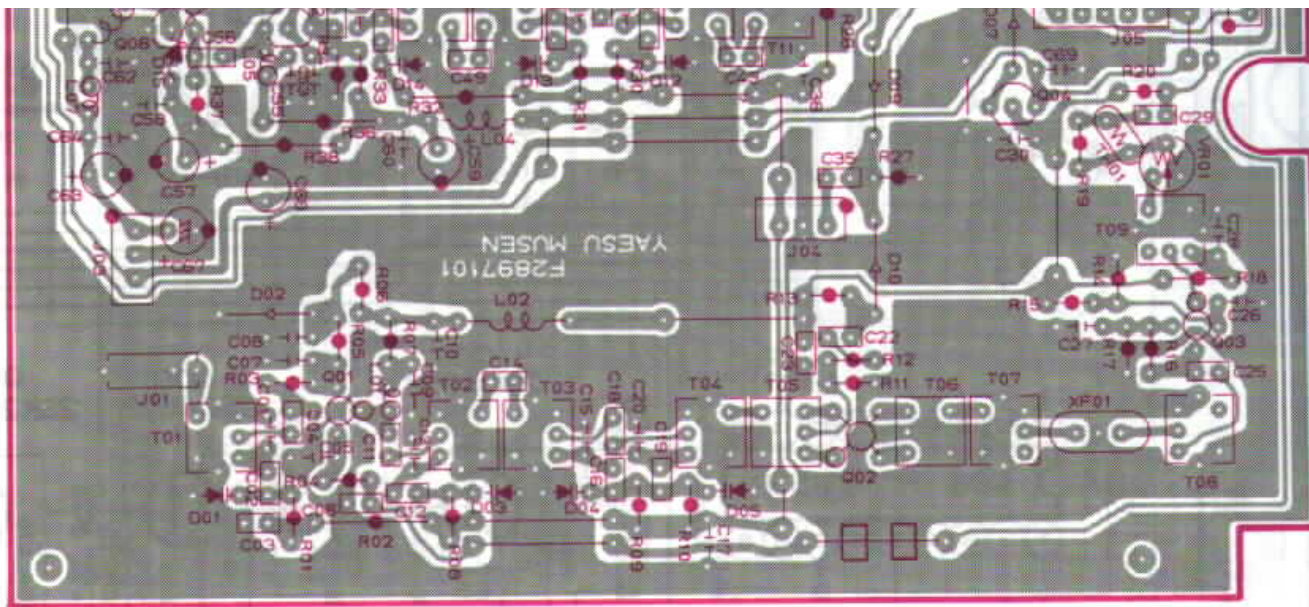


DIODES ARE TYPE 1SS270 UNLESS OTHERWISE NOTED.
(T)CAPACITORS ARE TANTALUM.
(p)CAPACITORS ARE SEMICONDUCTOR CERAMIC, 25V:

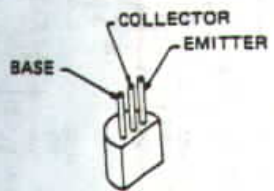
OTHERWISE NOTED.

OPTION



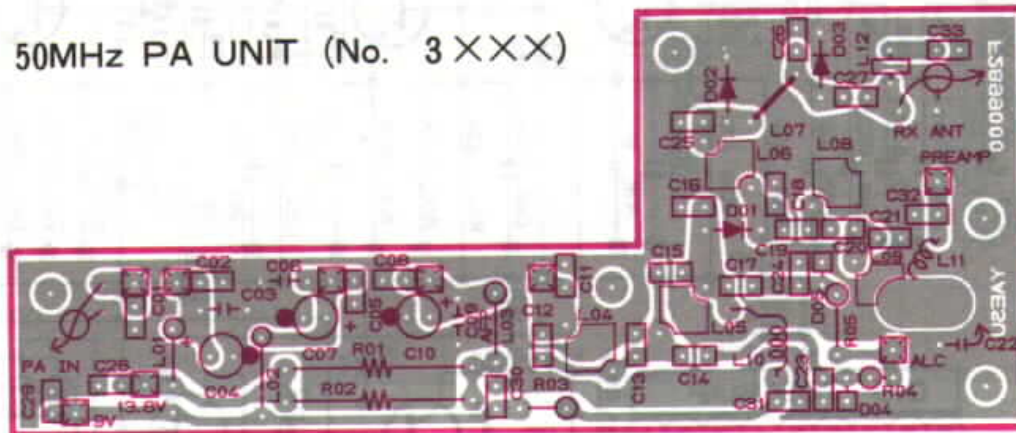


Component side (reverse)

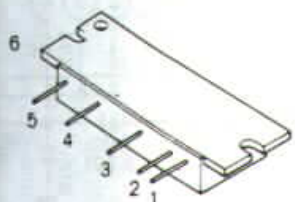
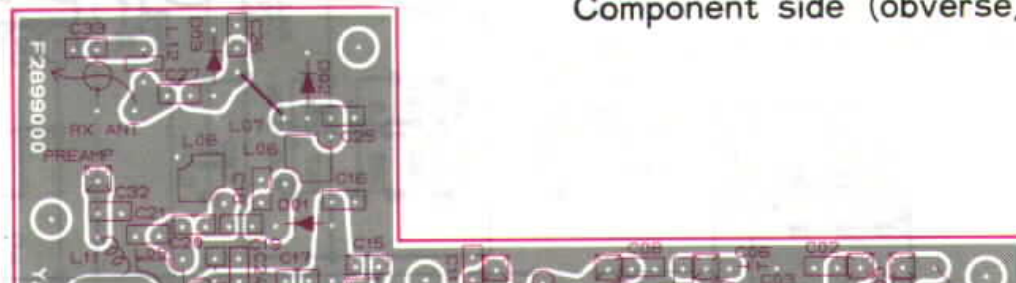


2SA1528
(Q2004,2012)

50MHz PA UNIT (No. 3XXX)



Component side (obverse)



- 1. INPUT
- 2. Vcc₁
- 3. Vcc₂
- 4. Vcc₃
- 5. OUTPUT
- 6. FLA

M57735 (Q3001)

D. FLA

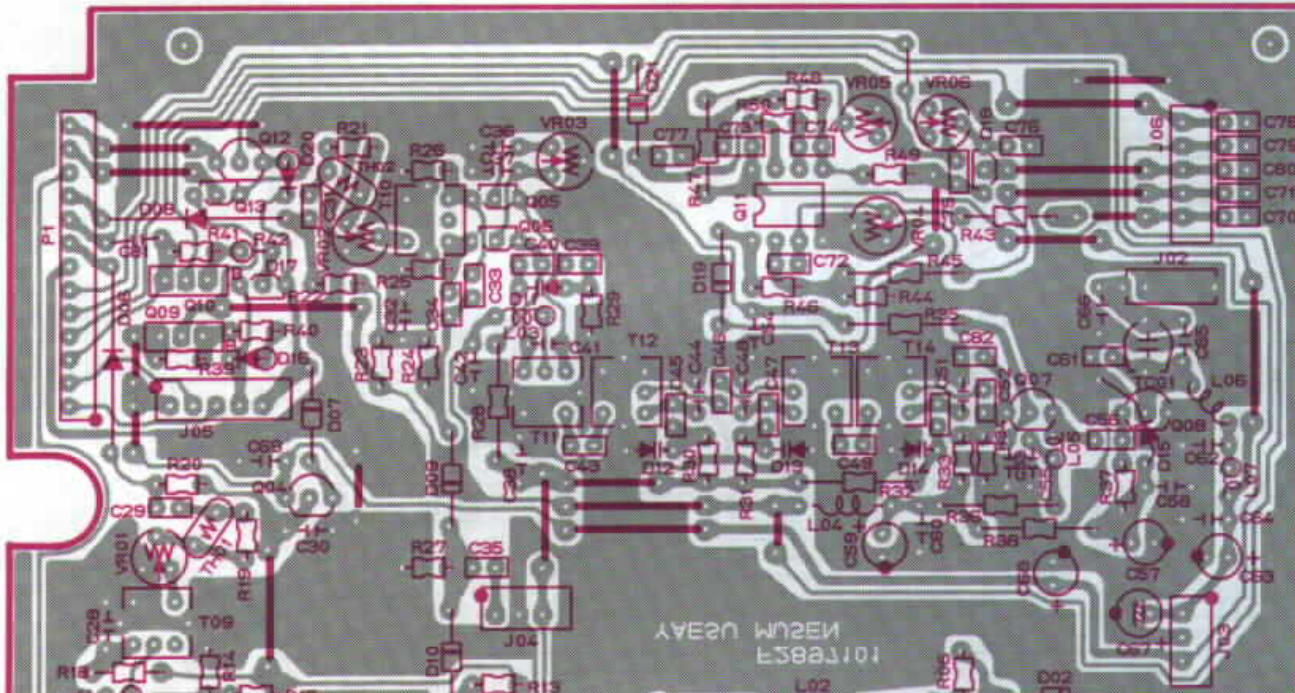


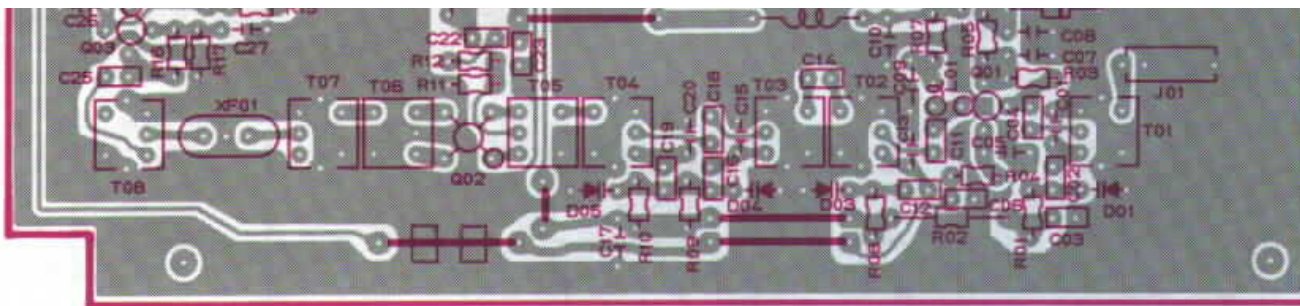
Component side (reverse)

— 36 —

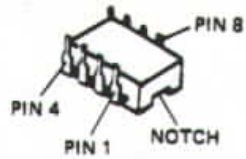
50MHz BAND MODULE (FEX-736-50) OPTION

50MHz RF UNIT (No. 2XXX)

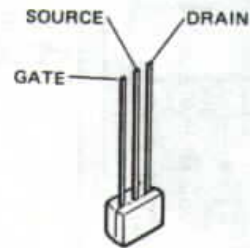




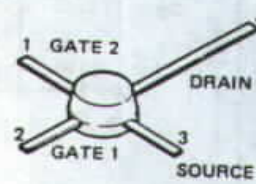
Component side (obverse)



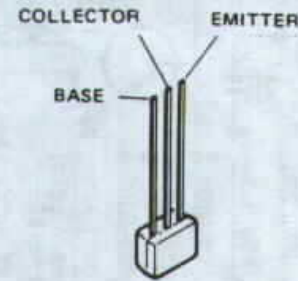
LA6358 (Q2011)



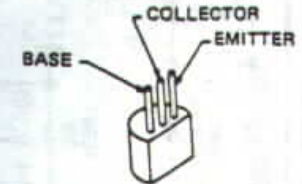
2SK241GR
(Q2004,2005)



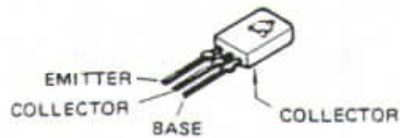
3SK122L (Q2003)



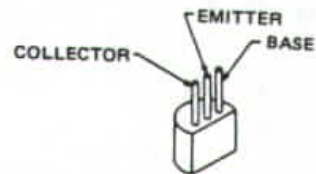
BA1A4P (Q2013)



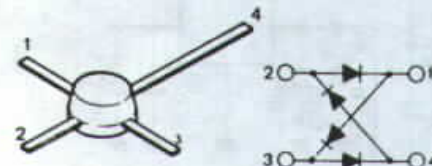
2SA1528
(Q2004,2012)



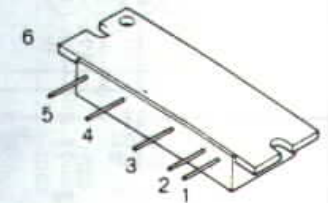
2SB772Q
(Q2009,2010)



2SC2026 (Q2007)
2SC2538 (Q2008)



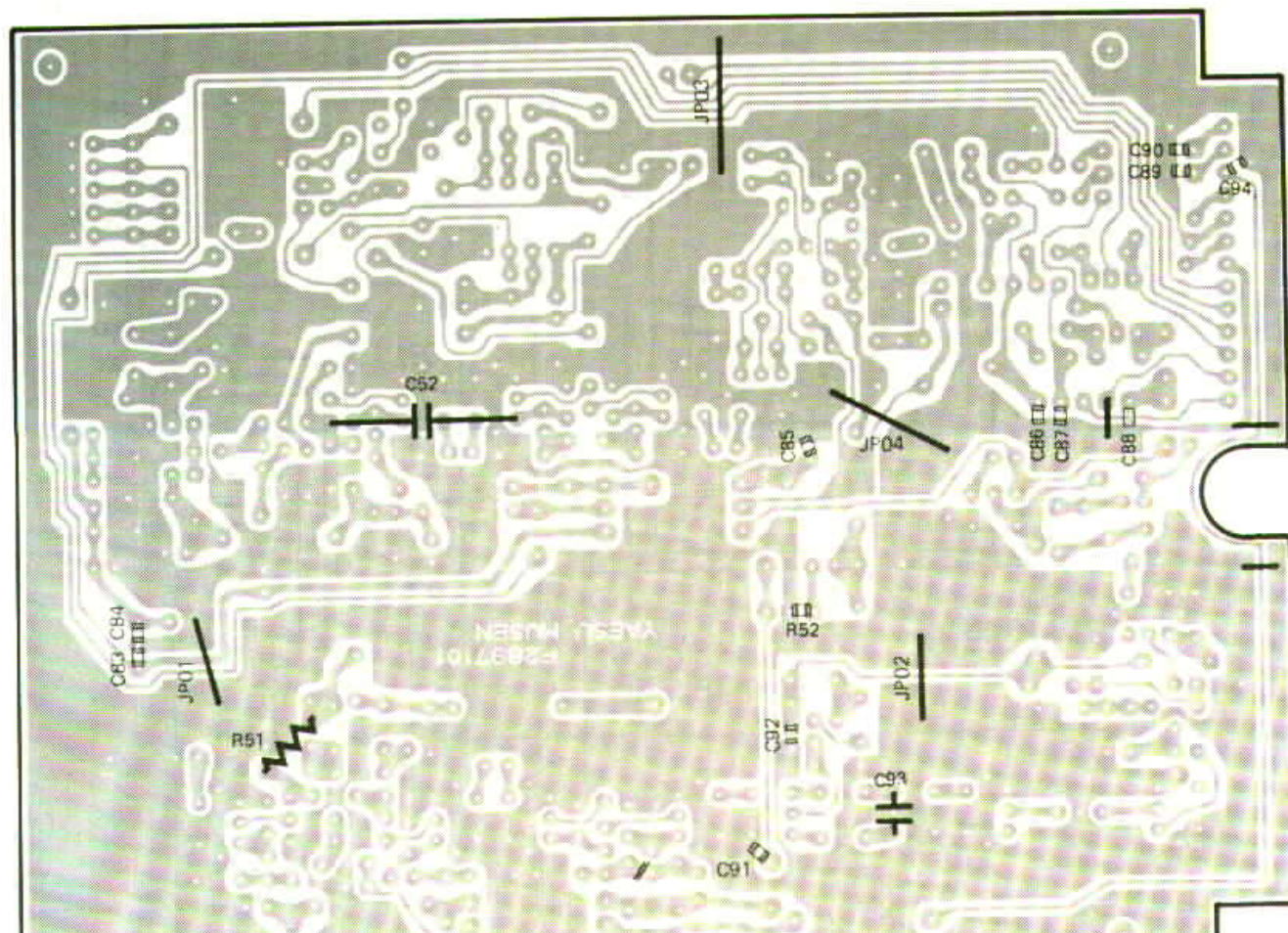
ND487C1-3R (Q2002)



M57735 (Q3001)

- 1. INPUT
- 2. Vcc₁
- 3. Vcc₂
- 4. Vcc₃
- 5. OUTP
- 6. FLA

50MH



Solder side (obverse)

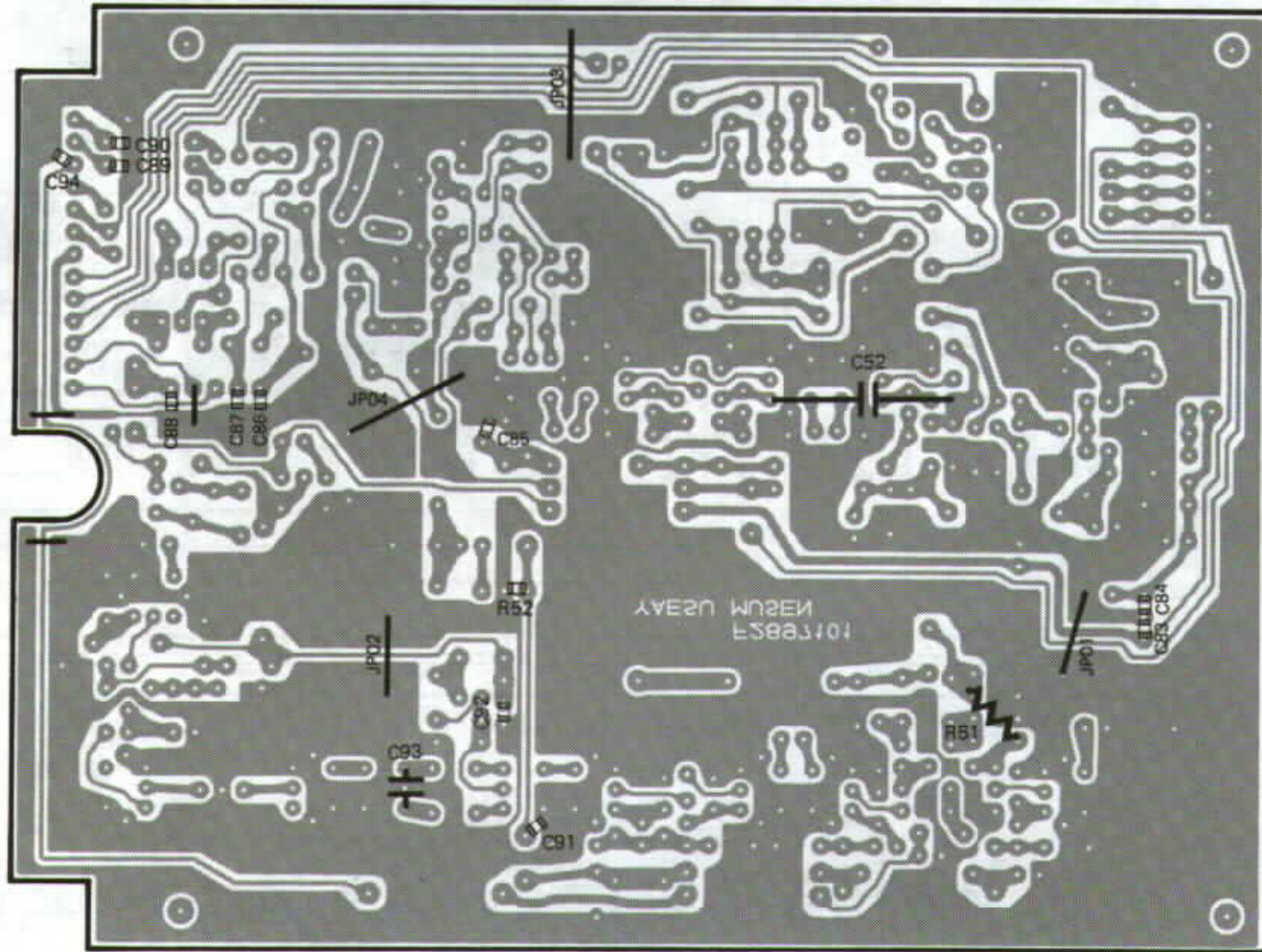
50MHz RF UNIT VOLTAGE CHART

(DC VOLTS)

	E(S)	G(D)	B		REMARKS
			(G ₁)	(G ₂)	
Q2001	1.24	8.50	1.07	1.99	
Q2003	0.61	8.34	0.61	4.44	
Q2004	9.00	893/002	880/896		RX/TX
Q2005	0.95	8.94	0.05		
Q2006	0.95	8.94	0.05		
Q2007	1.71	8.78	2.47		
Q2008	0	13.04	0.64		
Q2009	8.98	0/8.90	889/822		RX/TX
Q2010	13.80	1342/13.19	1280/1262		RX/TX
Q2012	0/12.50	0/12.50	0/0.79		PRE AMP OFF/ON
Q2013	0	0	0/8.90		RX/TX

	1(IN)	2(OUT)	3(GND)	4
Q2002	0	0		
Q2011	8.67	6.14	6.13	0.07
Q3001	-	13.8	9.00	13.4
Q01	13.50	0	9.05	

50MHZ BAND MODULE (FLEX-730-50) OPTION

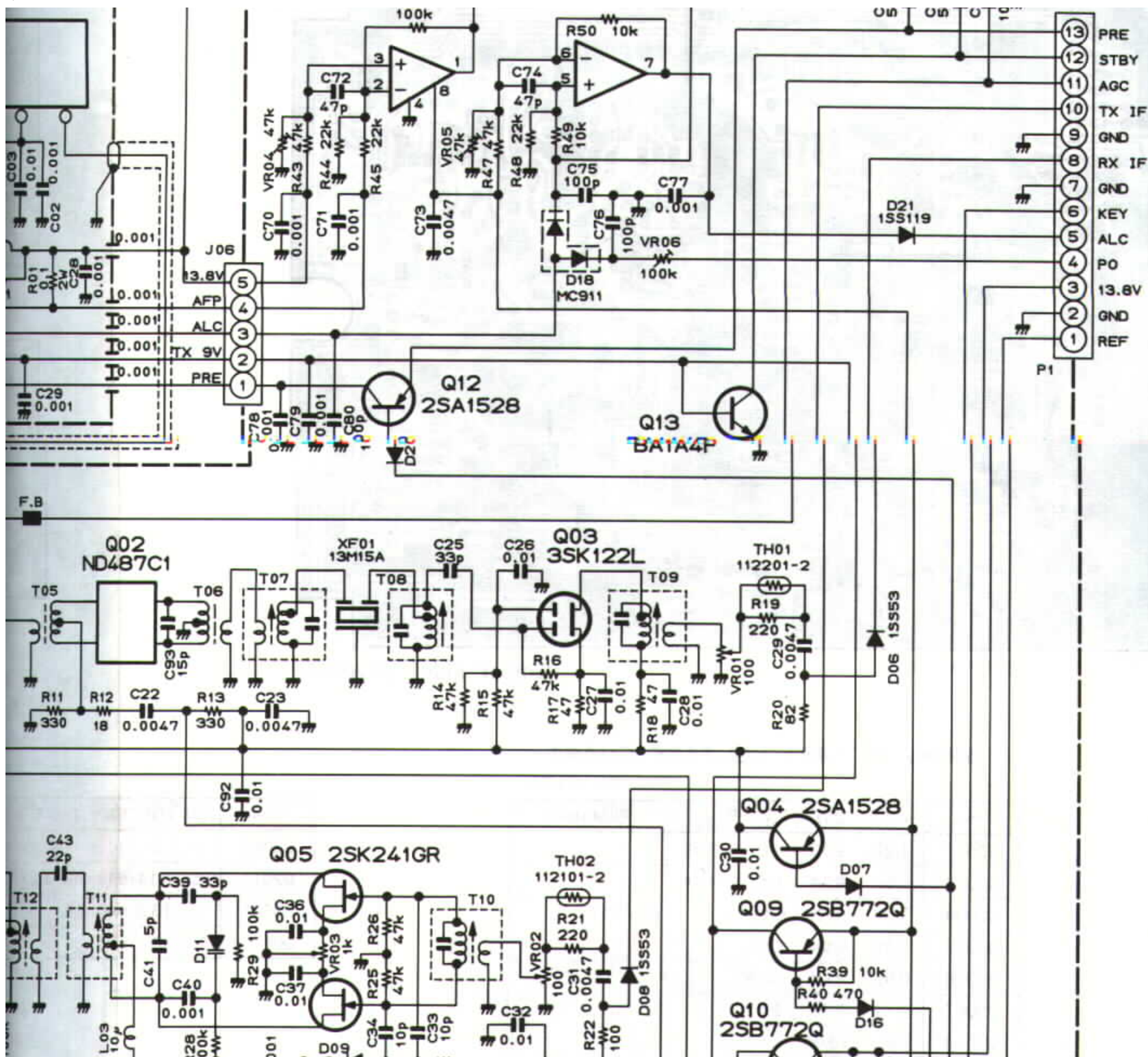


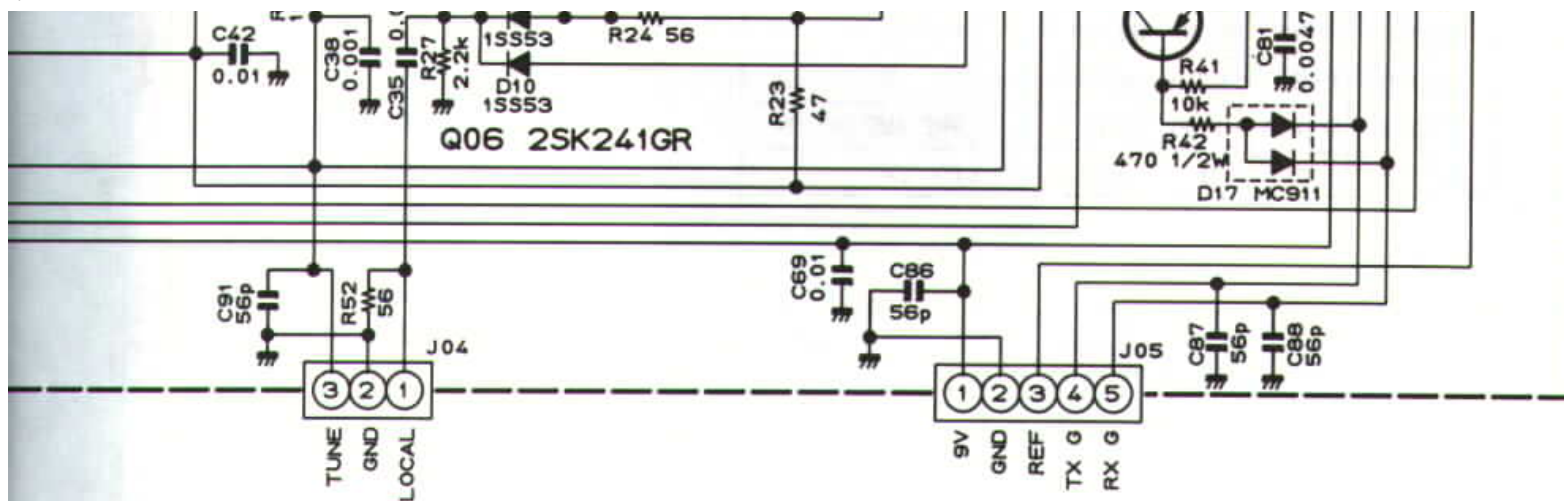
Solder side (reverse)

50MHz RF UNIT IC VOLTAGE CHART

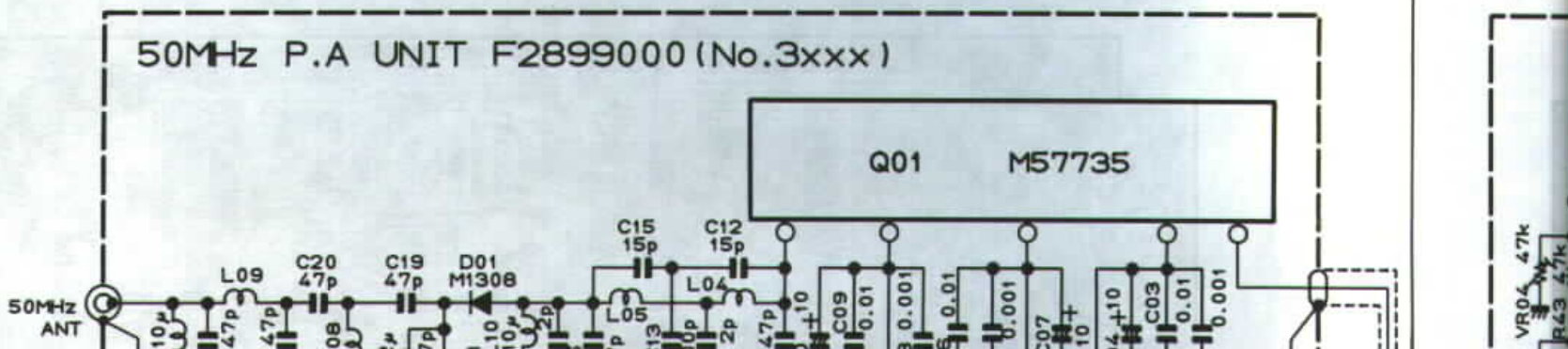
(DC VOLTS)

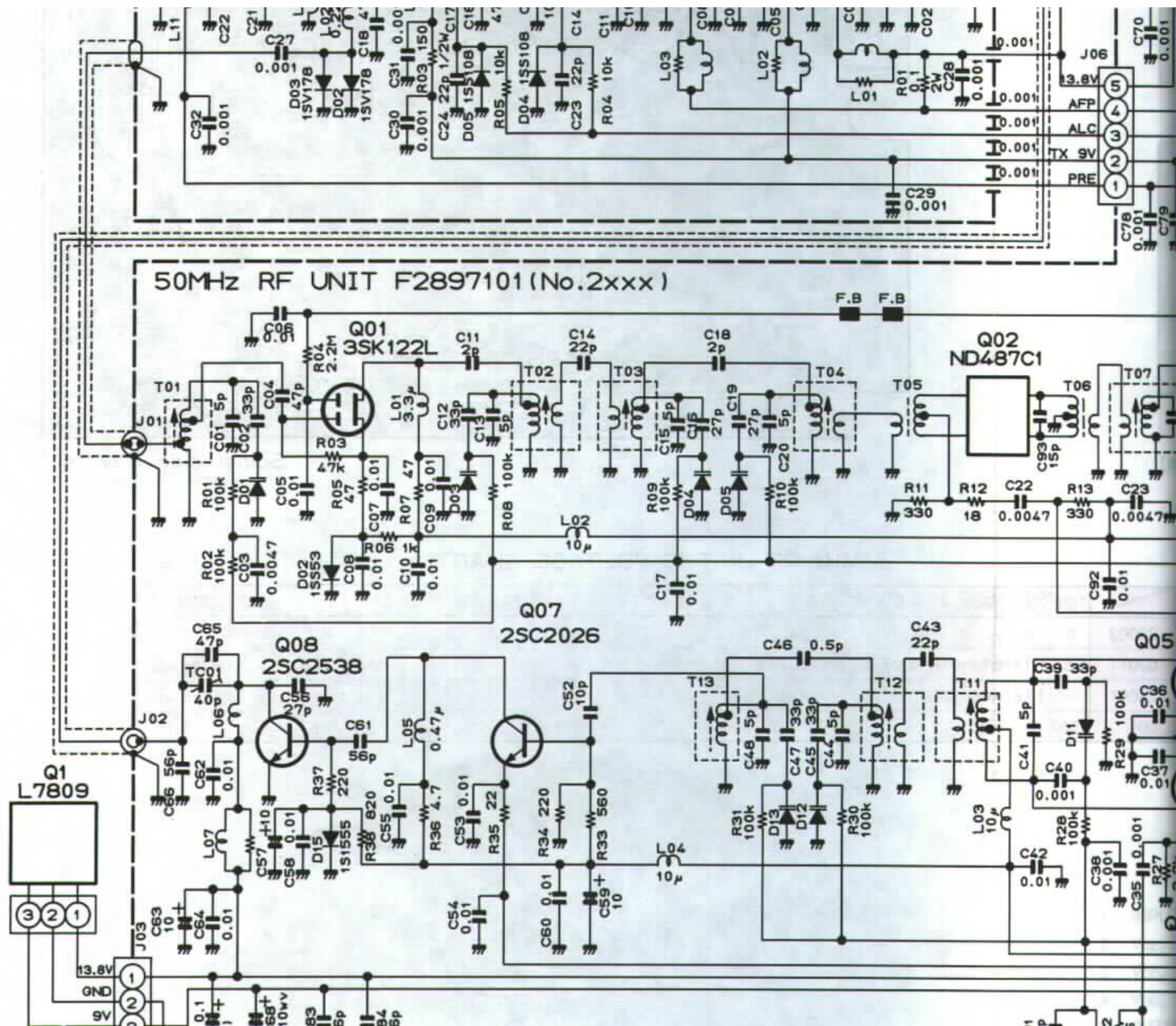
	1 (IN)	2 (OUT)	3 (GND)	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	REMARKS
02002	0	0																			

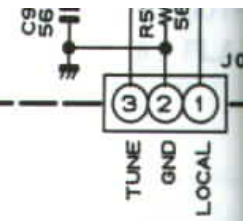
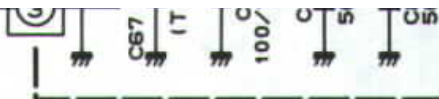




50MHz BAND MODULE (FEX-736-50) OPTION



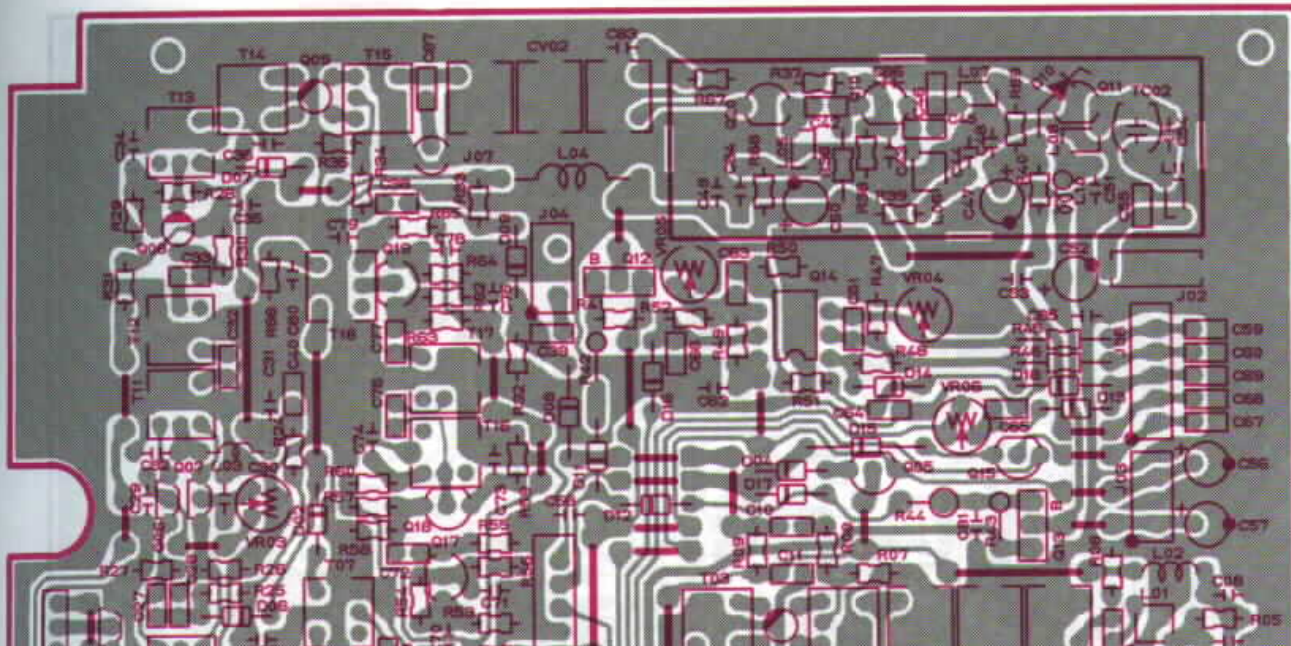


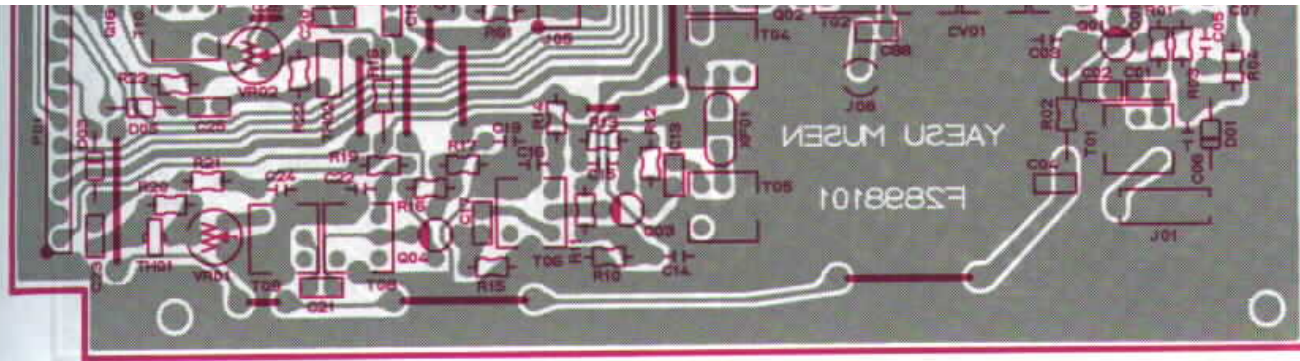


RESISTOR VALUES ARE IN Ω . 1/8W:
 CAPACITOR VALUES ARE IN μ F.
 INDUCTOR VALUES ARE HENRIES.
 DIODES ARE TYPE 1SS270 UNLESS OTHERWISE NOTED.
 (T)CAPACITORS ARE TANTALUM.

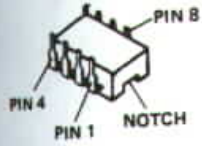
13.8V
US

220MHz RF UNIT (No. 2XXX)

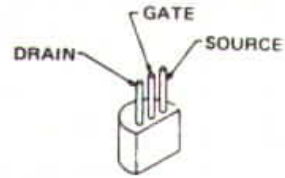




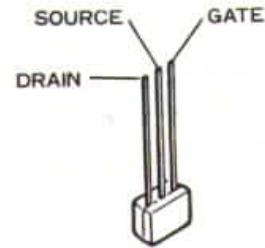
Component side (obverse)



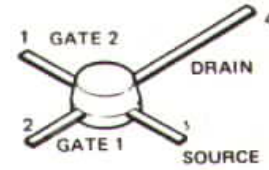
LA6358 (Q2014)



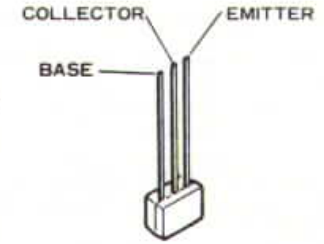
2SK125 (Q2020)



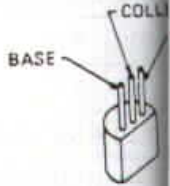
2SK241GR
(Q2006, 2007)



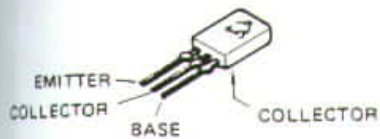
3SK122L
(Q2001, 2003, 2008)
3SK81 (Q2004)



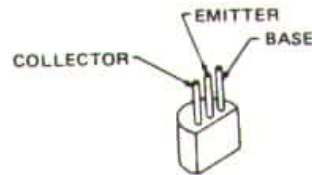
BA1A4P (Q2016)



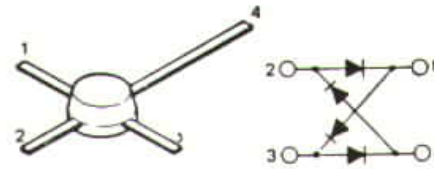
2SA1528 (Q2000)
2SC535B (Q2010)



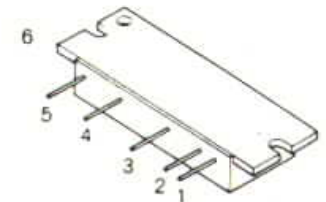
2SB772Q (Q2012, 2013)



2SC2407(1) (Q2011)
2SC3355 (Q2010)

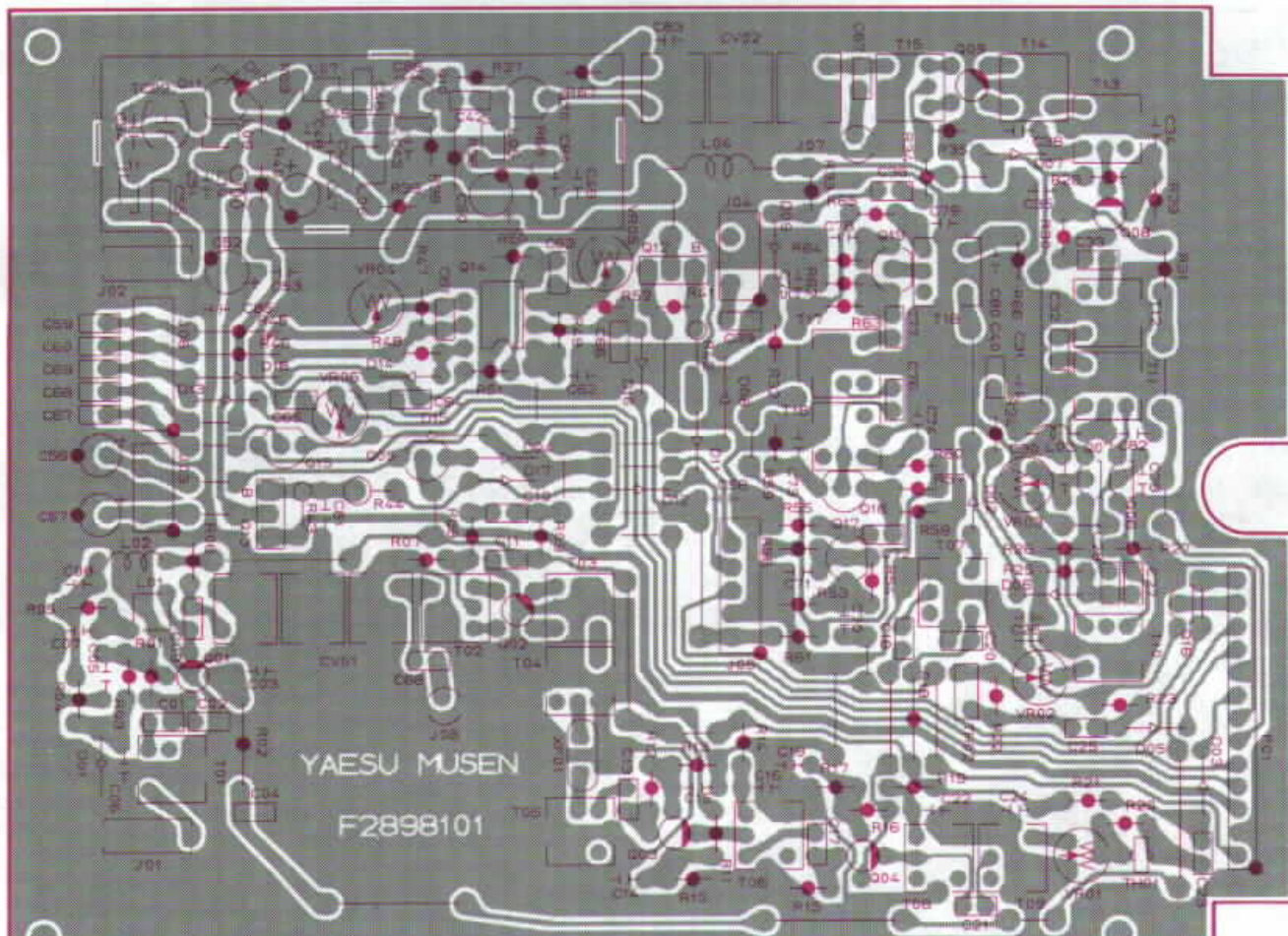


ND487C1-3R (Q2002)



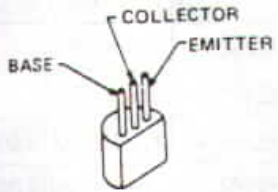
1.INPUT 2.V_{CC1} 3.V_{CC2}
4.V_{CC3} 5.OUTPUT 6.FLANGE
M67712 (Q3001)

220MHz BAND MODULE (FEX-736-220) OPTION



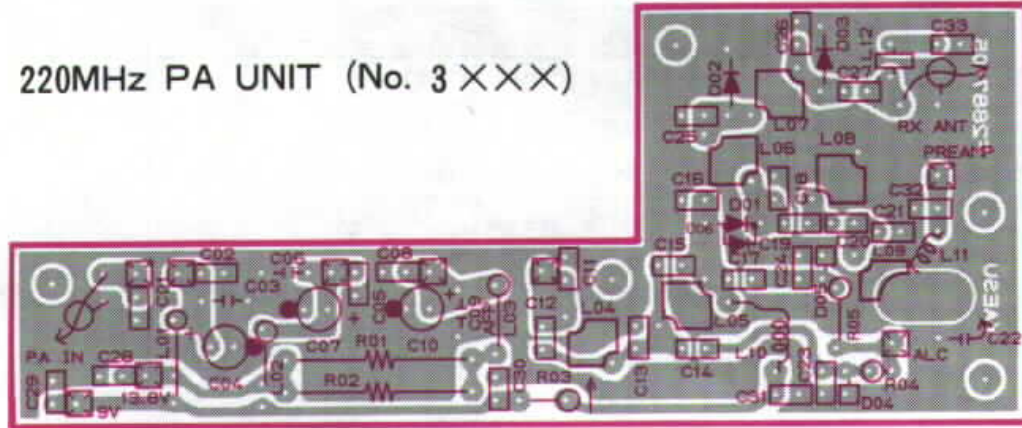
Component side (reverse)

TER

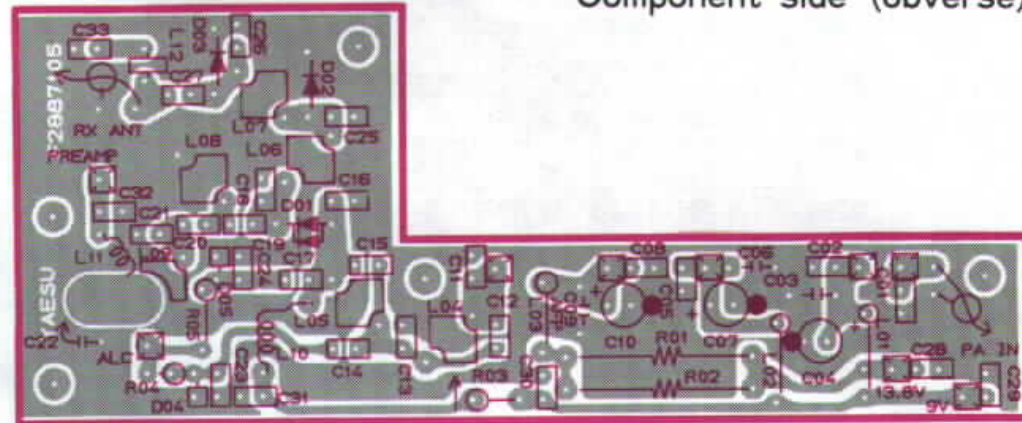


2SA1528 (Q2005,2015)
 2SC535B (Q2018,2019)

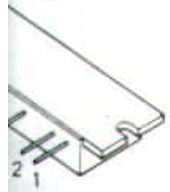
220MHz PA UNIT (No. 3XXX)



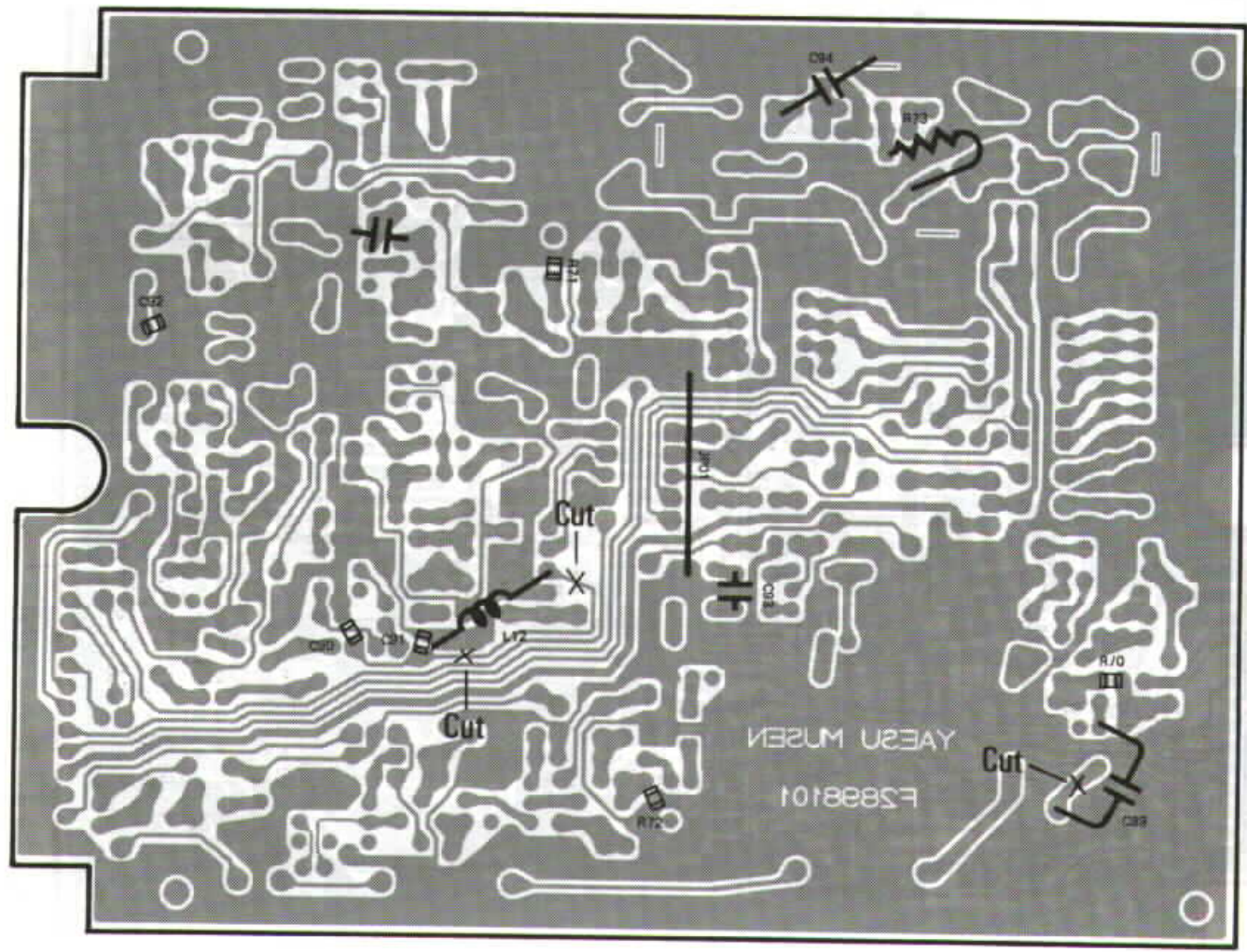
Component side (obverse)



Component side (reverse)



C1 3.VcC2
 PUT 6.FLANGE
 2 (Q3001)



Solder side (reverse)

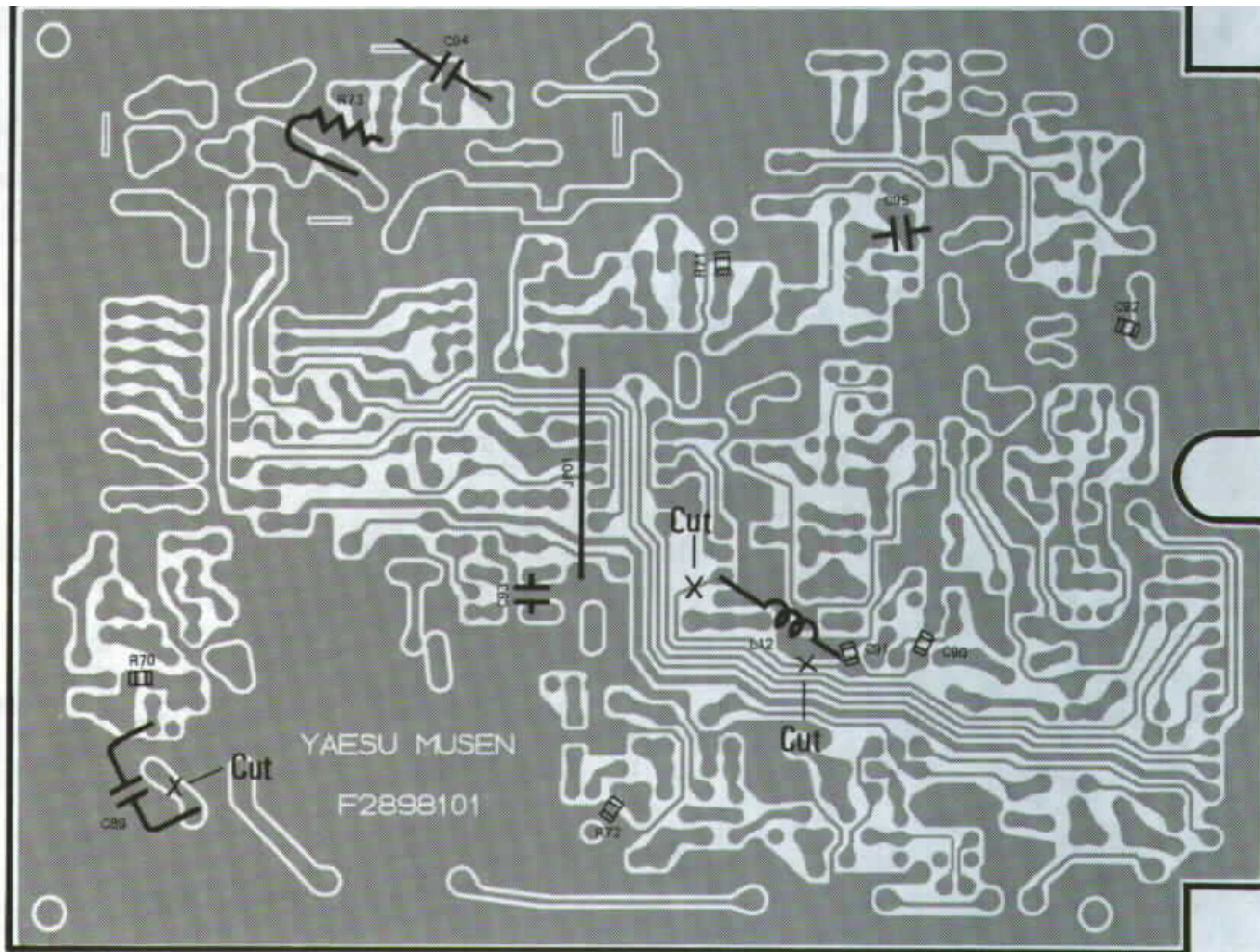
220MHz RF UNIT IC VOLTAGE CHART

(DC VOLTS)

1 (IN)	2 (OUT)	3 (GND)	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	REMARKS

002	0	0																		
009	0	0																		
014	1.19	6.02	6.02	0	1.57	1.57	1.06	8.97												@ 10W output
001	—	13.80	9.00	13.16	—															@ 10W output
	13.8	8.0	0																	

220MHz BAND MODULE (FEX-736-220) OPTION



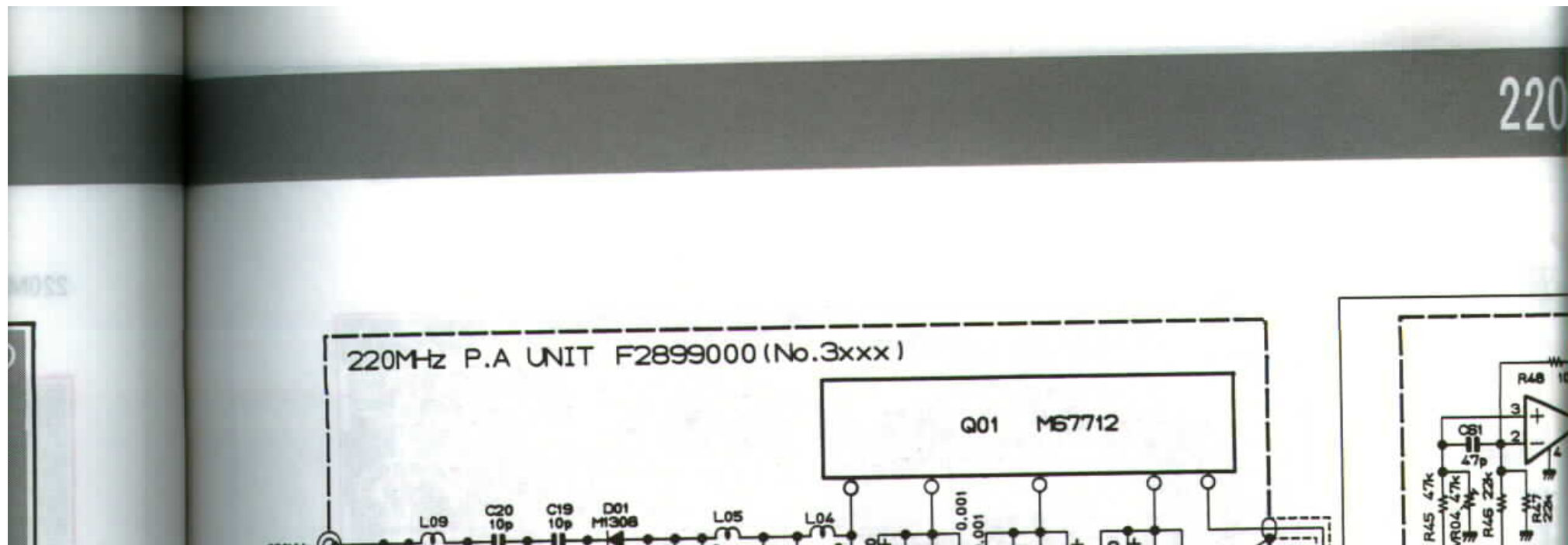
Solder side (obverse)

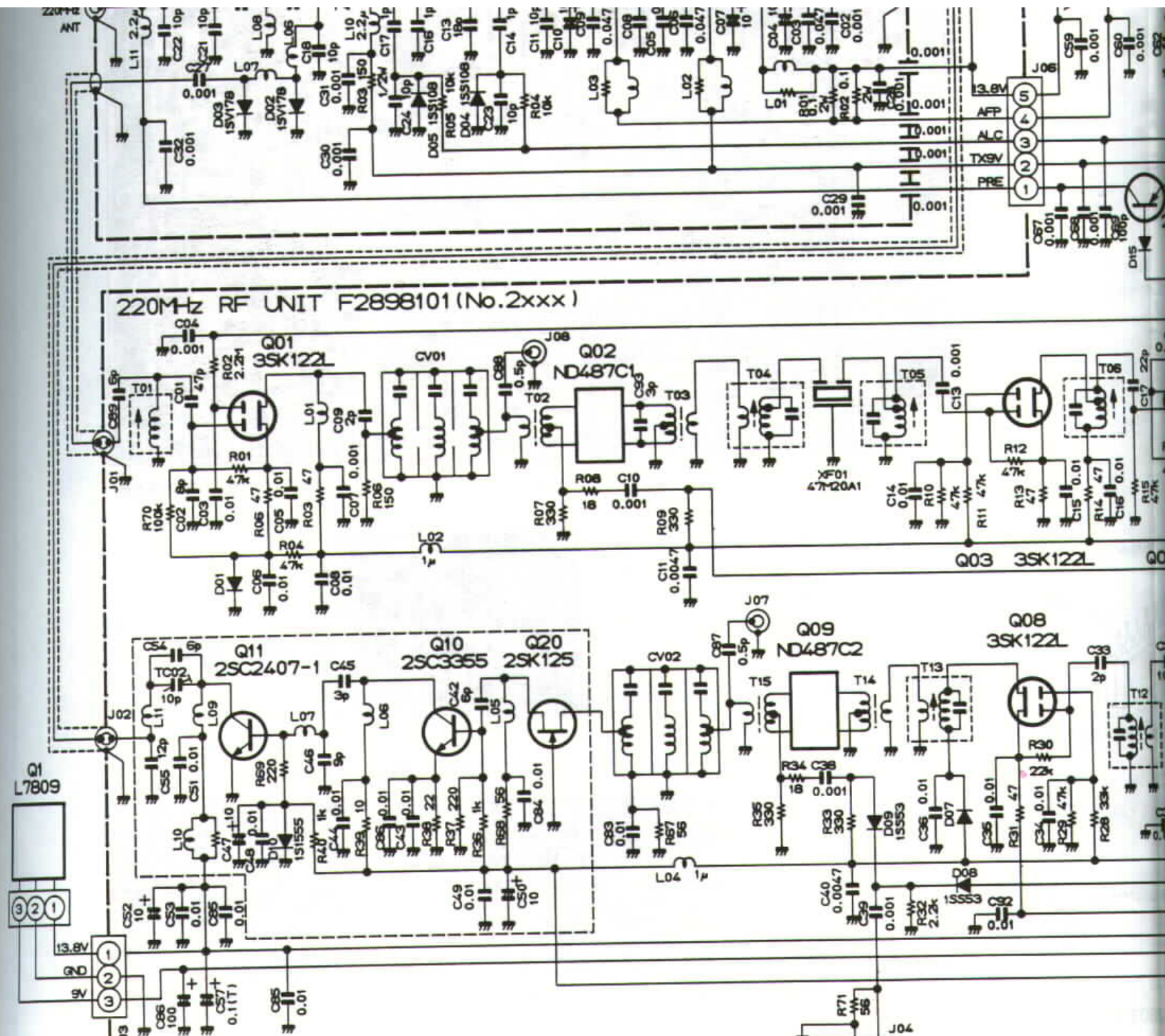
220MHz RF UNIT VOLTAGE CHART
(DC VOLTS)

	E(S)	C(D)	B		REMARKS
			(G ₁)	(G ₂)	
Q2001	1.02	8.64	0.92	1.99	
Q2003	0.50	8.43	0.33	4.47	
Q2004	0.28	8.67	0	0.19	
Q2005	9.00	8.95/0	0.79/8.89		RX/TX
Q2006	1.0	8.9	0		
Q2007	1.0	8.9	0		

	1(IN)	2(OUT)	3(GND)	4
Q2002	0	0		
Q2009	0	0		
Q2014	1.19	6.02	6.02	0
Q3001	—	13.80	9.00	13.16
Q01	13.8	8.0	0	

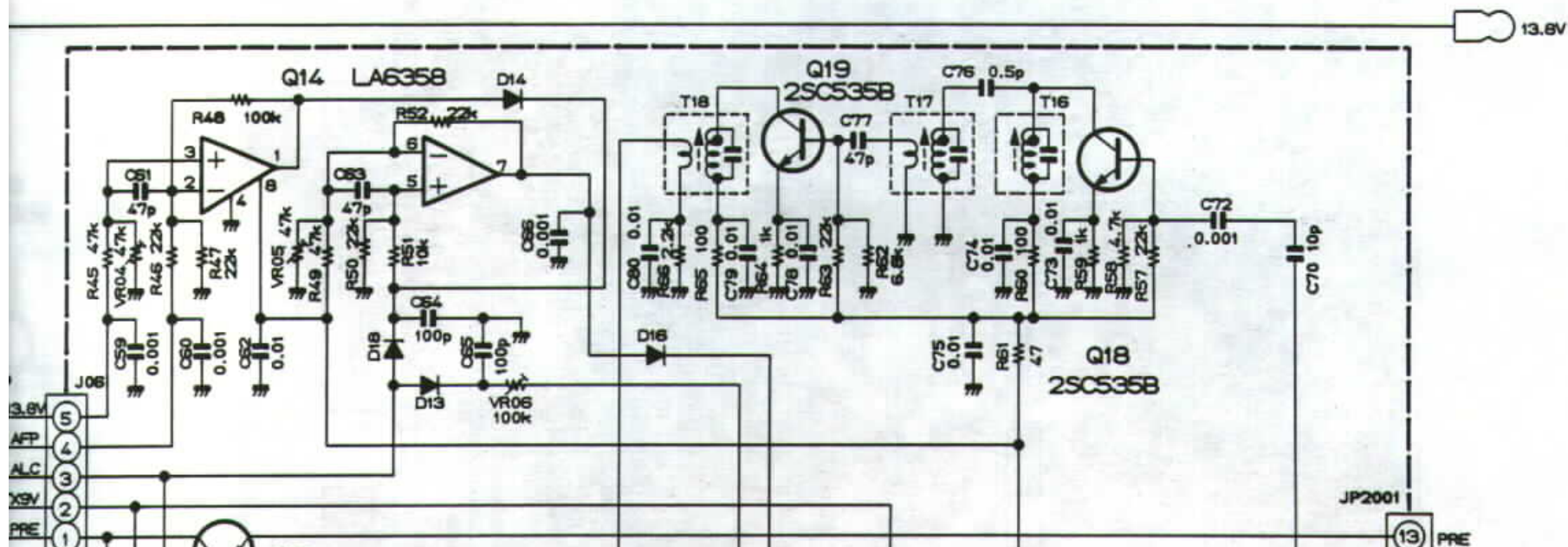
Q2008	1.69	8.18	1.82	5.21	
Q2010	0.81	8.55	1.55		
Q2011	0	12.56	0.47		
Q2012	9.00	0/8.91	8.99/8.20		RX/TX
Q2013	13.80	13.44/12.85	12.72/12.16		RX/TX
Q2015	0/12.50	0/12.50	0/0.79		PRE AMP OFF/ON
Q2016	0	0.23/0	0/8.53		RX/TX
Q2018	0.97	8.76	1.52		
Q2019	1.34	8.73	2.00		
Q2020	1.28	7.65	0		

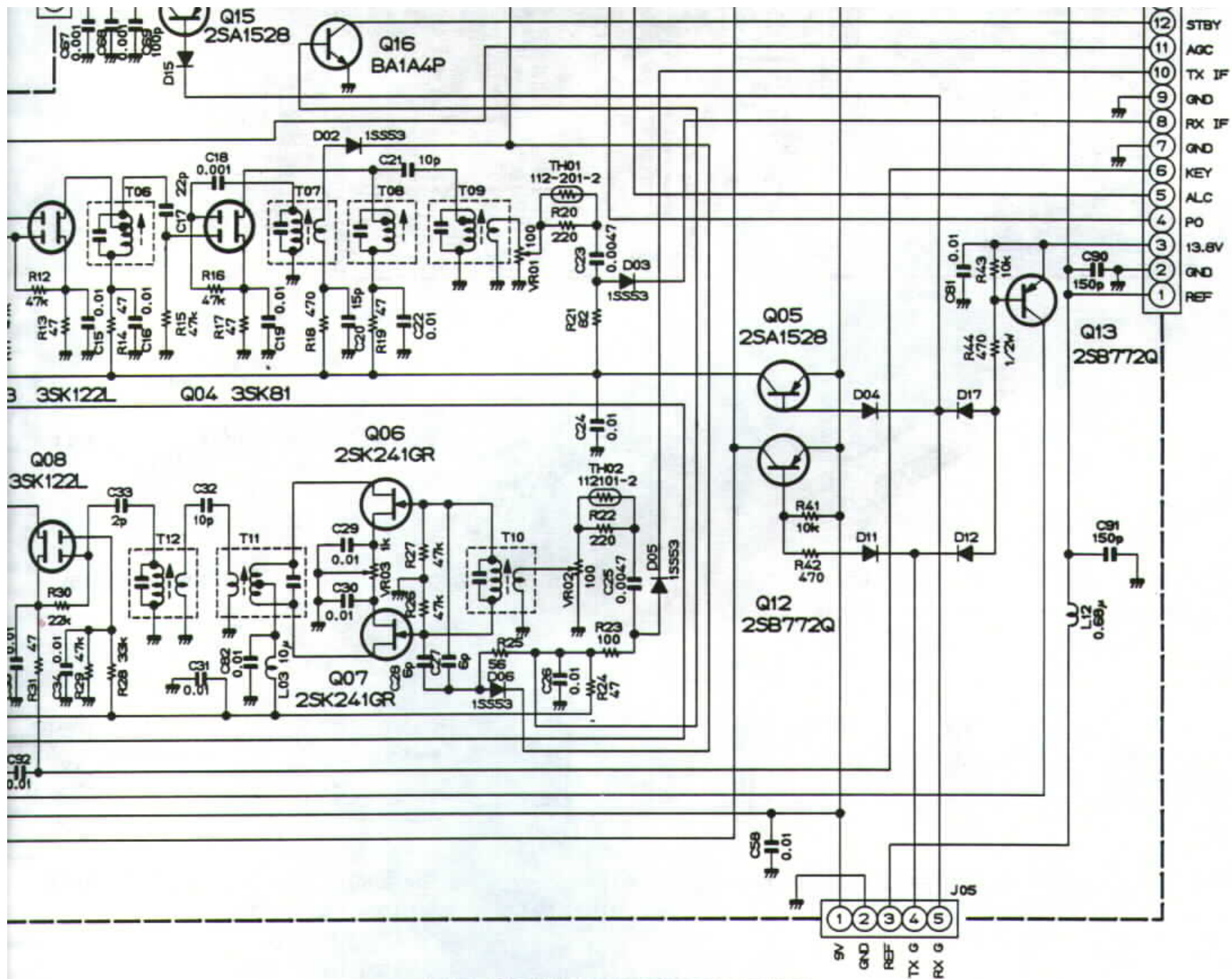






220MHz BAND MODULE(FEX-736-220) OPTION

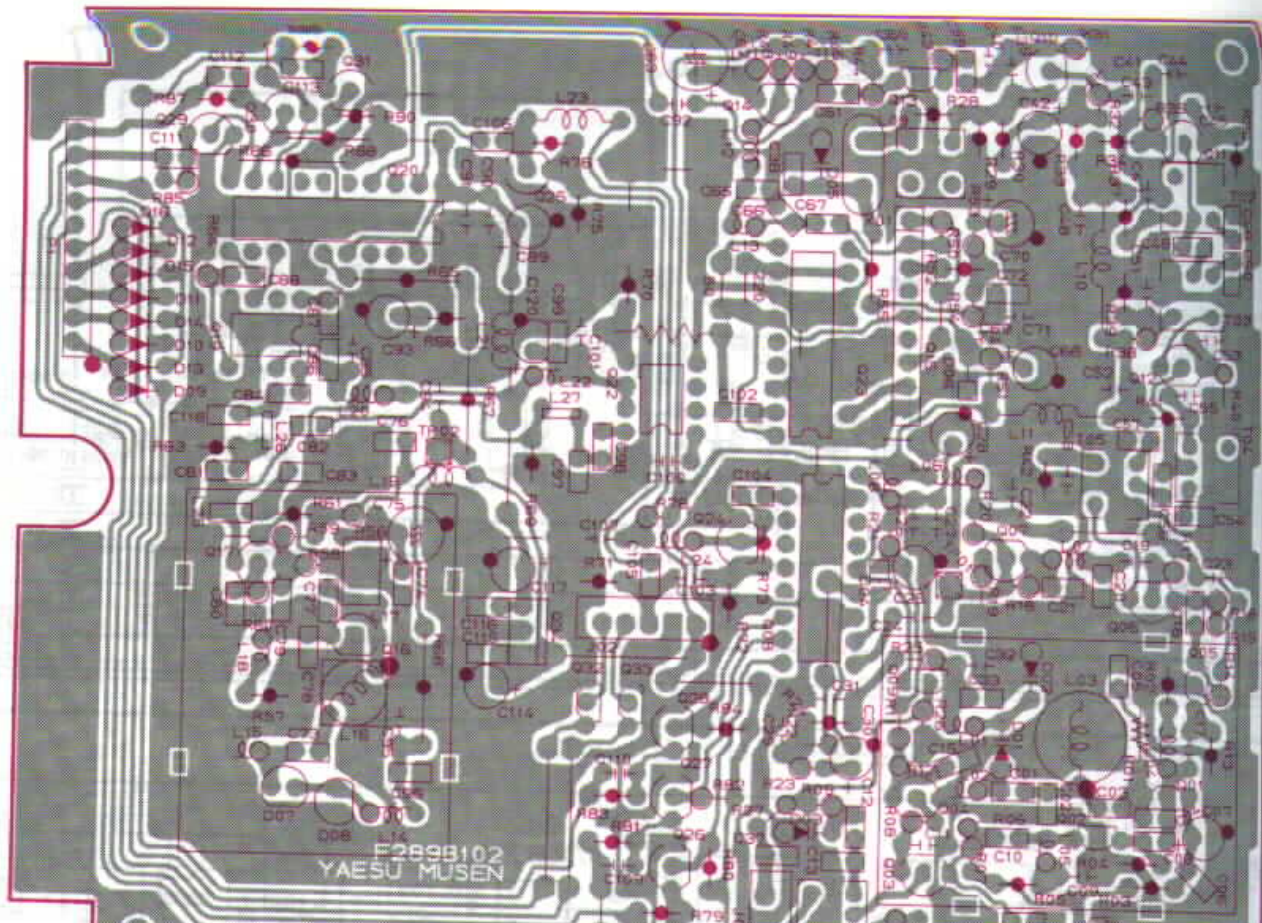


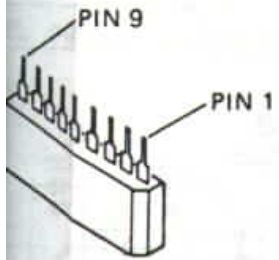


VALUES ARE IN Ω. 1/6W
 VALUES ARE IN μF.
 VALUES ARE IN HENRIES. UNLESS OTHERWISE NOTED.

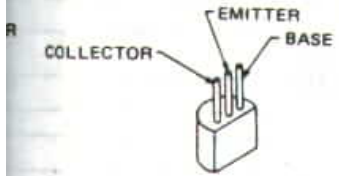
DIODES ARE TYPE 1SS270 UNLESS OTHERWISE NOTED.
 (T) CAPACITORS ARE TANTALUM.
 (s) CAPACITORS ARE SEMICONDUCTOR CERAMIC. 25V:

PTION





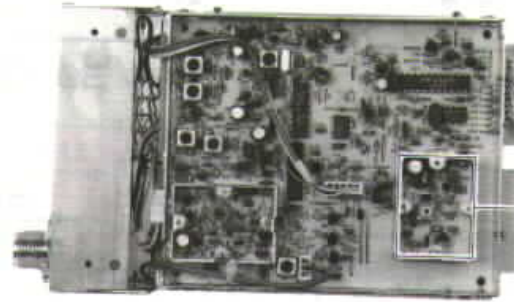
TC5081AP(Q1015)



2SC3355(Q1017)

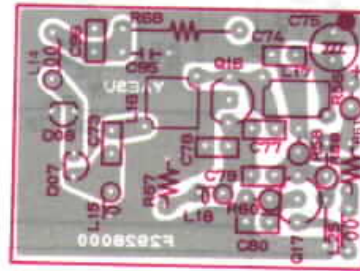


Component side (reverse)

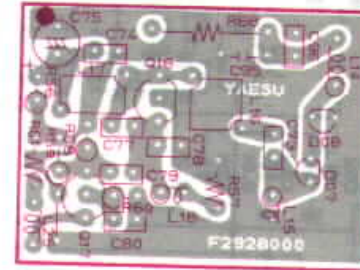


220MHz SUB VCO UNIT

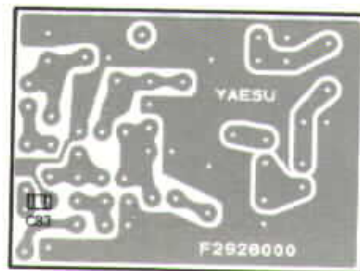
220MHz SUB VCO UNIT (No. 1XXX)



Component side (obverse)



Component side (reverse)



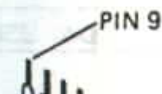
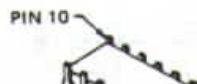
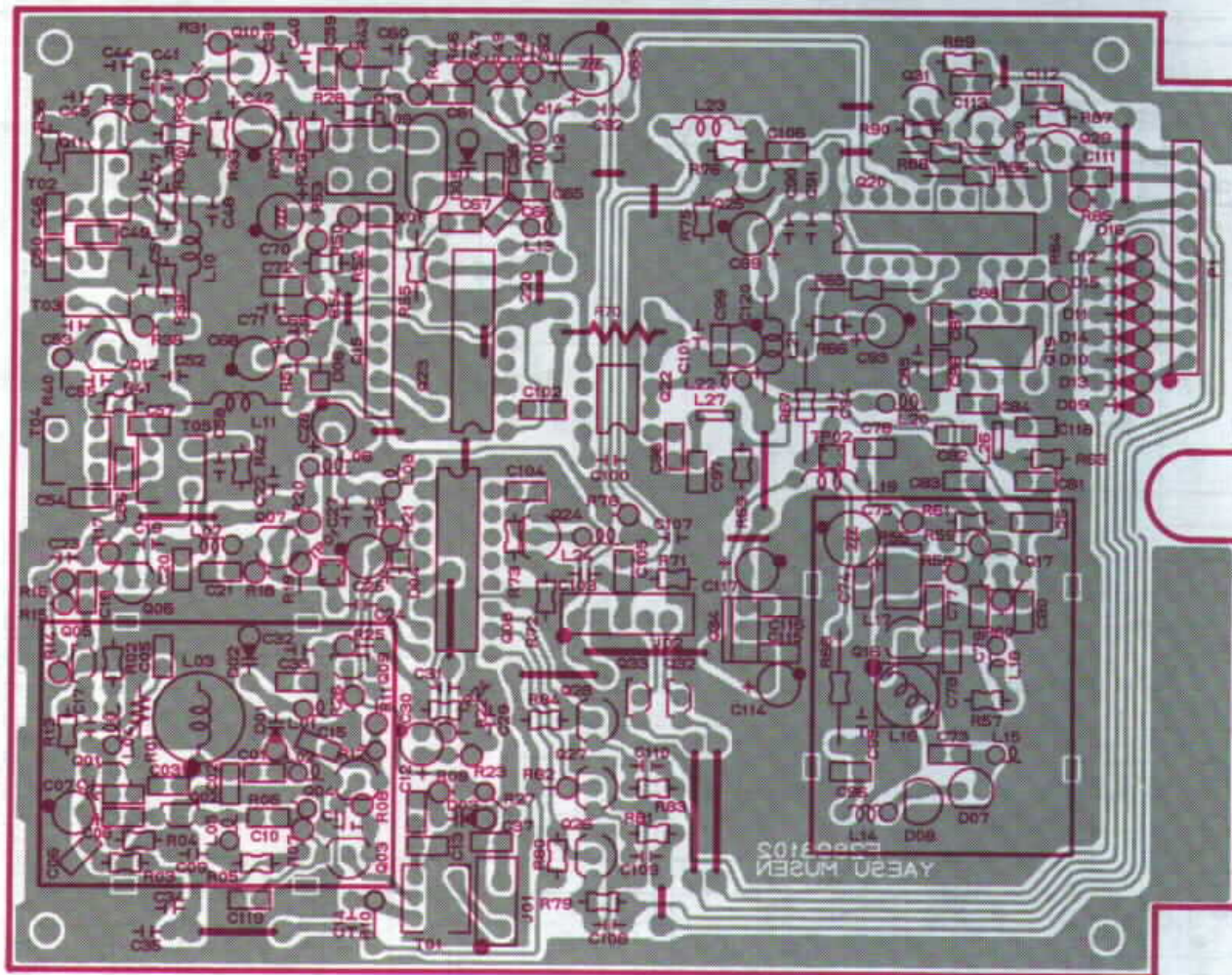
Solder side (obverse)

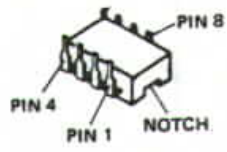


Solder side (reverse)

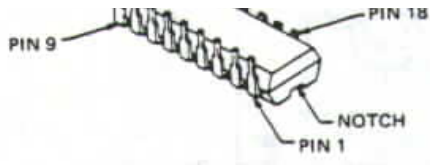
220MHz BAND MODULE (FEX-736-220) OPTION

220MHz PLL UNIT (No. XXX)

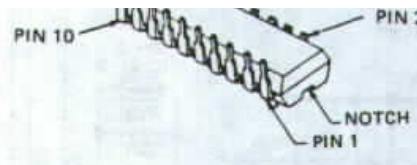




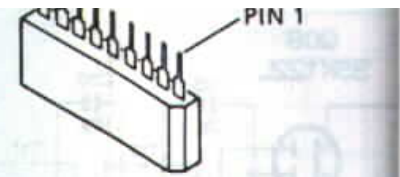
MB504(Q1019)
MB505-16(Q1022)



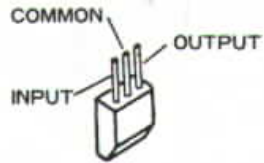
T09122P(Q1023)
MC145155P(Q1008)



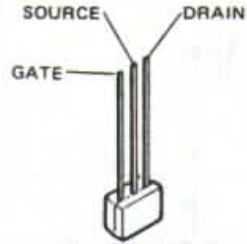
MC145156P(Q1020)



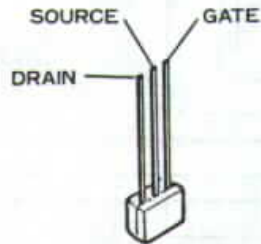
TC5081AP(Q1015)



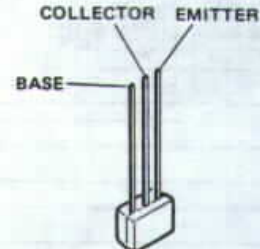
μPC78L05(Q1034)



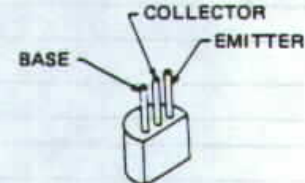
2SK192AGR(Q1001)
2SK241GR
(Q1002,1005,1013)



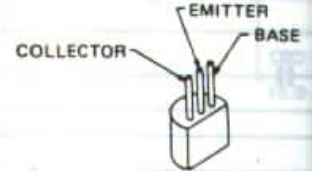
2SK507F(Q1016)



BA1A4P
(Q1032,1033)



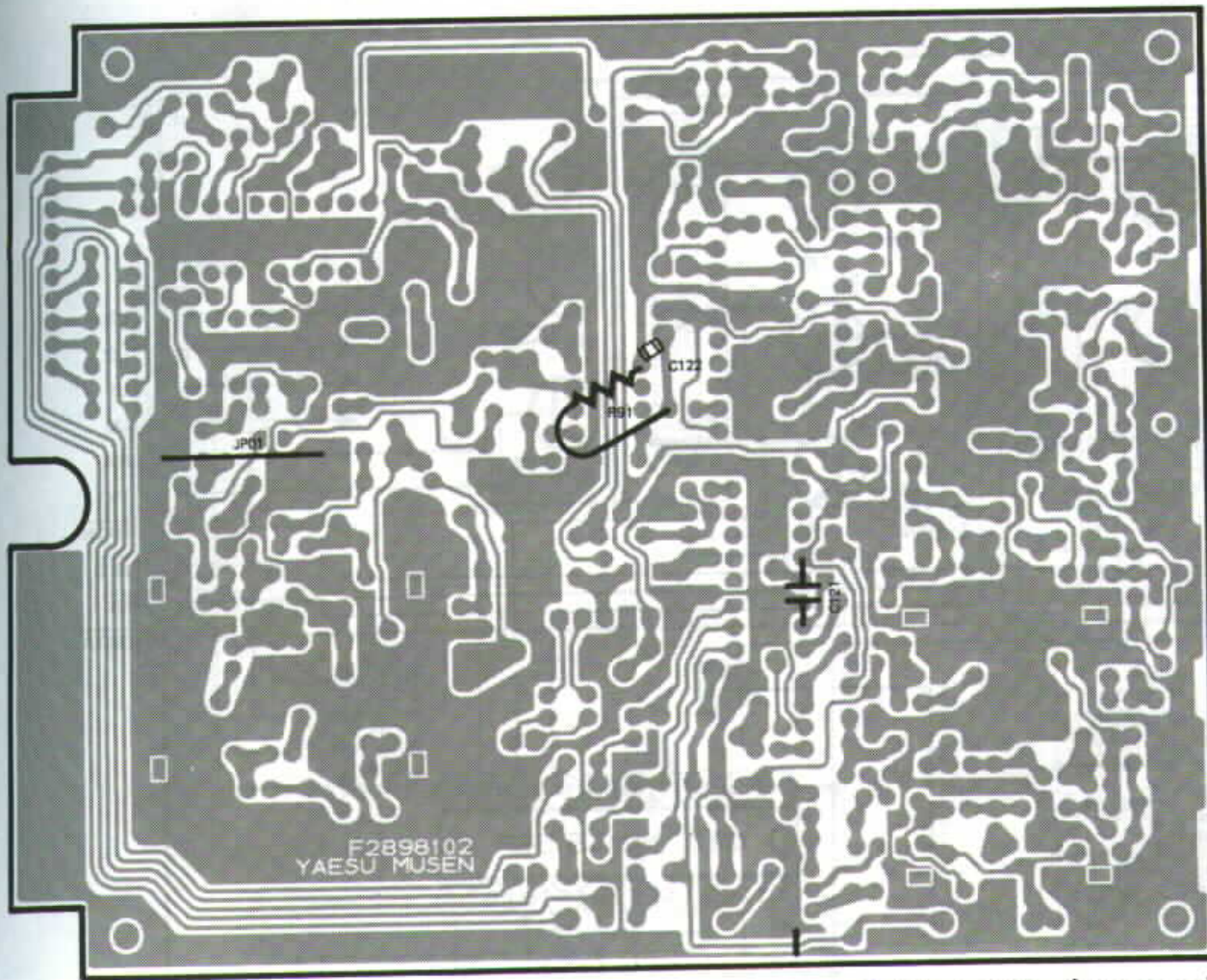
2SC458C
(Q1004,1024,1025)
(1026,1027,1028)
(1029,1030,1031)



2SC3355(Q1017)

2SC460B
(Q1007,1010)

2SC535B
(Q1003,1006,1011)
(1012,1014)



Solder side (obverse)

220MHz PLL UNIT VOLTAGE CHART

(DC VOLTS)

	E(S)	C(D)	(G ₁) ^B	(G ₂)	REMARKS		E(S)	C(D)	(G ₁) ^B	(G ₂)	REMARKS
Q1001	0.64	8.32	0			Q1016	1.17	8.67	0		
Q1002	0	8.53	0			Q1017	1.08	7.81	1.86		
Q1003	1.38	8.64	1.77			Q1024	0	5.08	0.70		
Q1004	0	0.06	0.71			Q1025	0	4.55	0.67		
Q1005	0	4.63	0			Q1026	0	0.09	0.69		

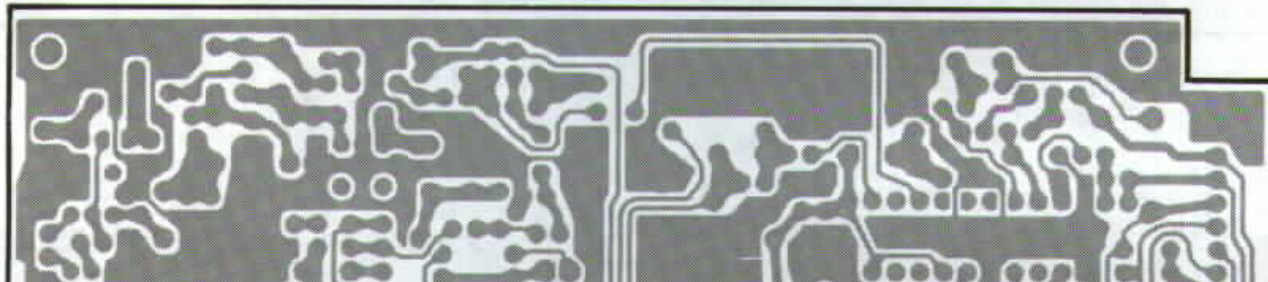
Q1008
Q1015
Q1019
Q1020
Q1022

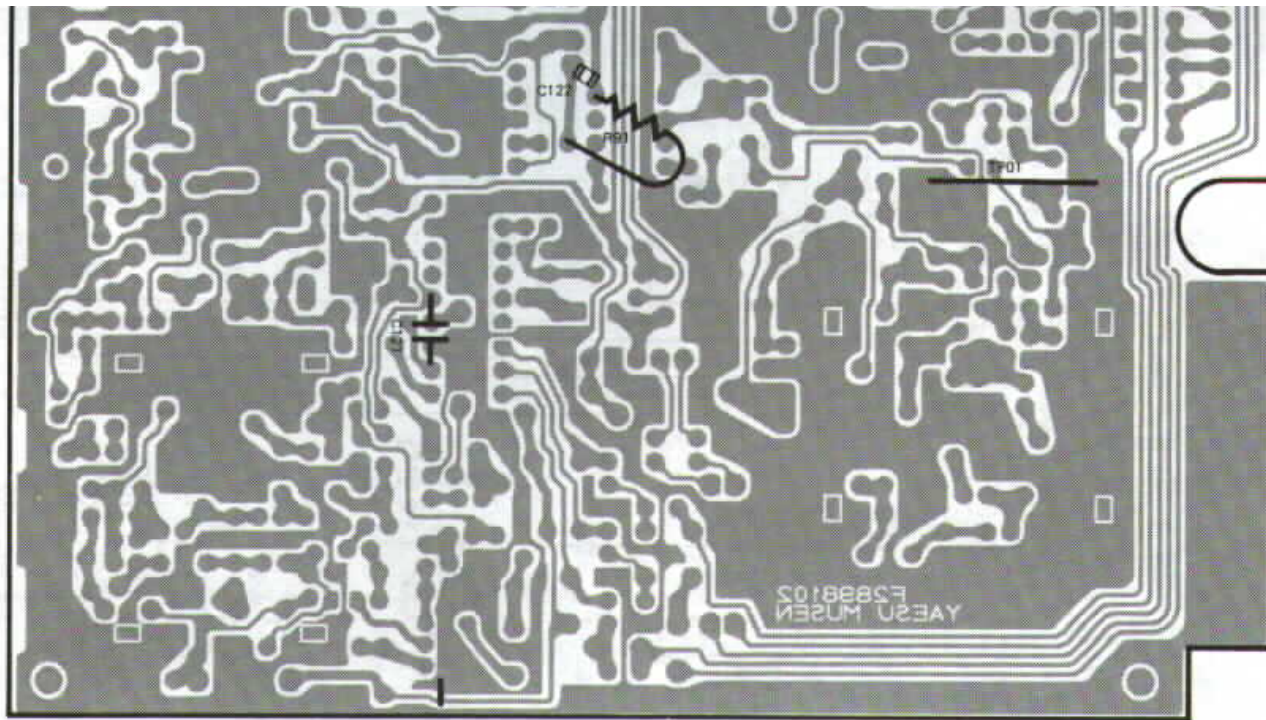
Q1006	0.97	6.00	1.58			Q1027	0	0.09	0.69		
Q1007	0.73	5.33	1.46			Q1028	0	0.09	0.09		
Q1010	2.44	8.51	3.04			Q1029	0	0.07	0.68		
Q1011	1.15	8.70	1.74			Q1030	0	0.07	0.68		
Q1012	0.95	8.77	1.63			Q1031	0	0.07	0.68		
Q1013	0	4.74	0			Q1032	0	0.14/8.93	4.73/0		RX/TX
Q1014	1.05	5.21	1.62			Q1033	0	8.93/0.27	0/4.73		RX/TX

Q1023

Q1034

220MHz BAND MODULE(FEX-736-220) OPTION



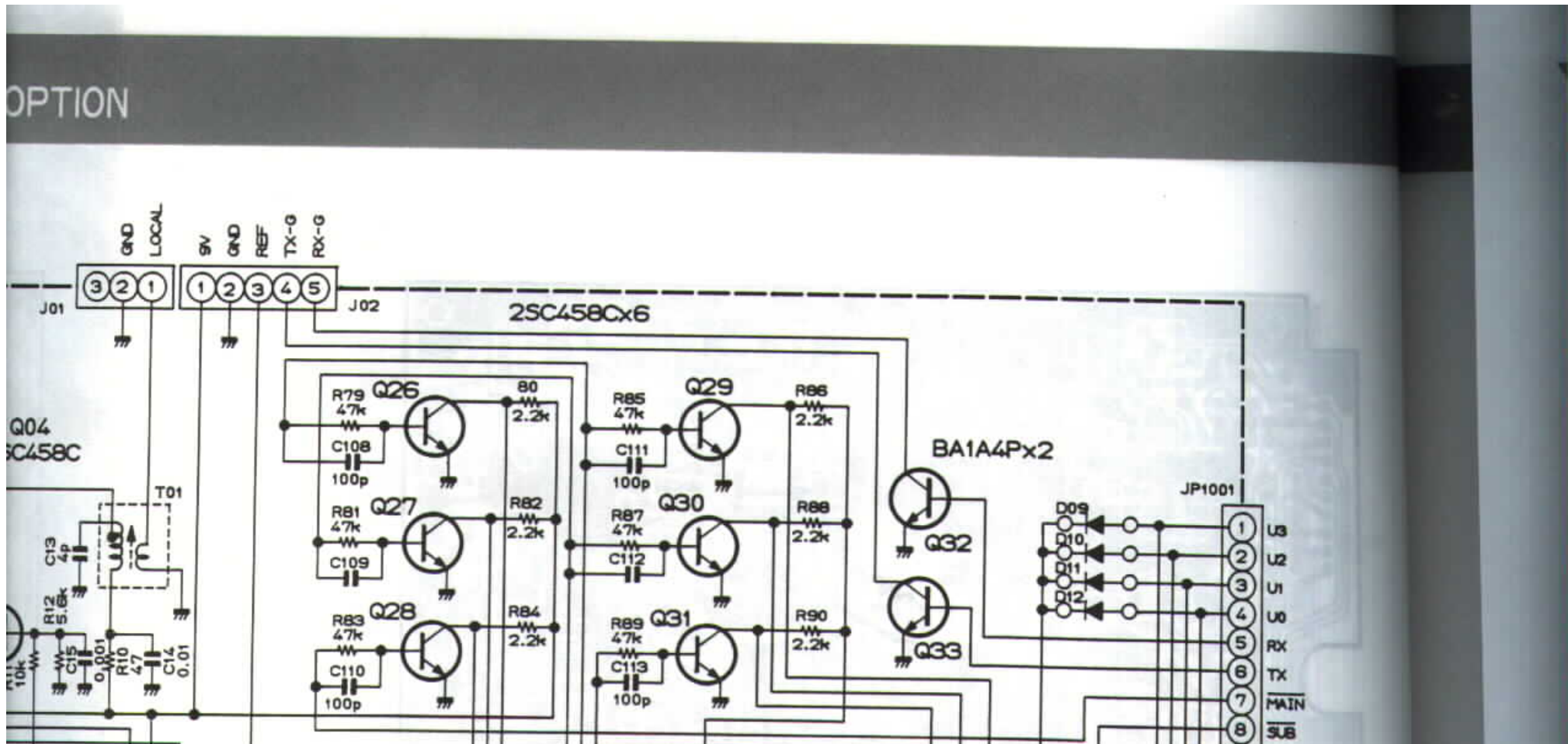


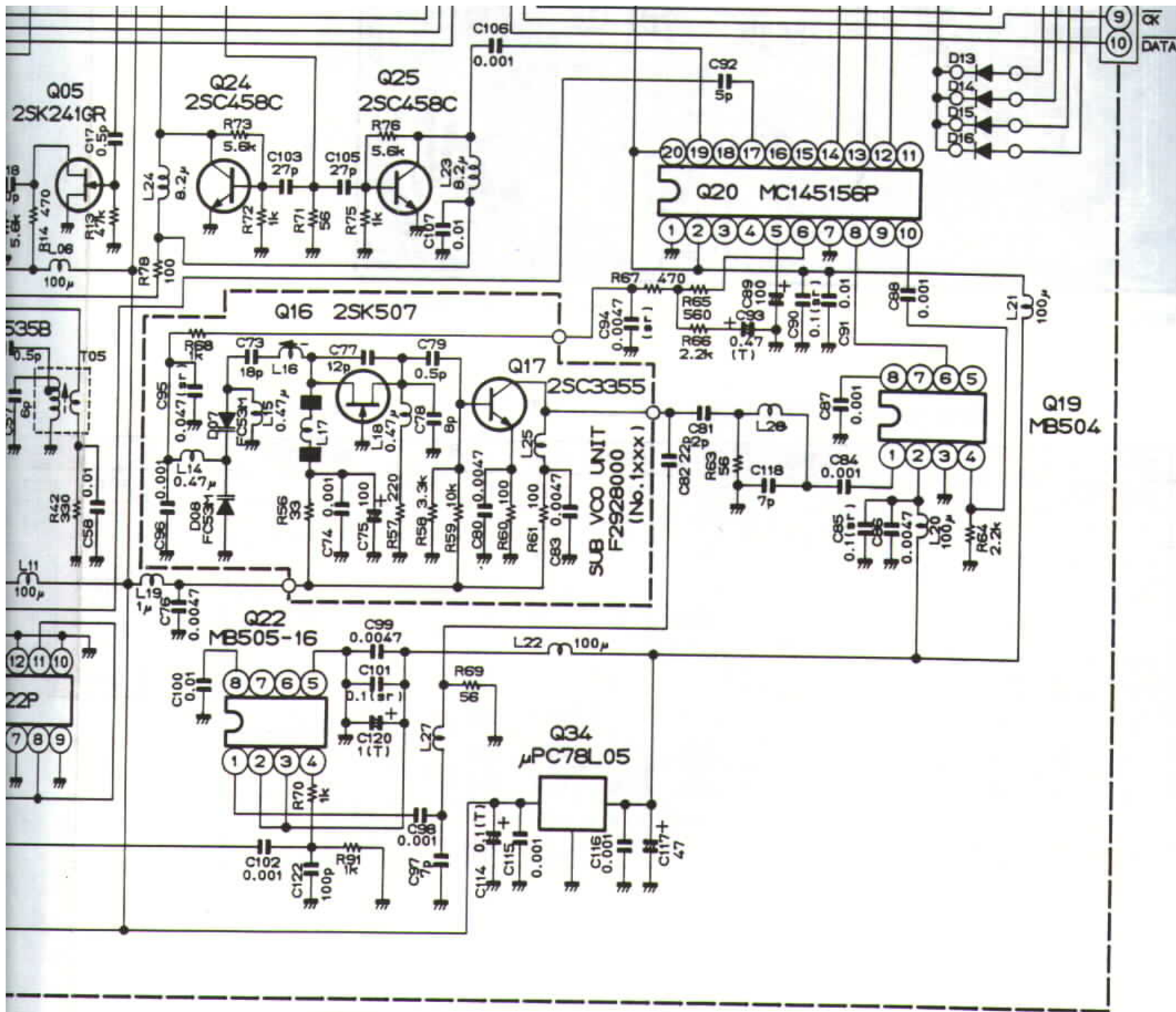
Solder side (reverse)

220MHz PLL ULIT IC VOLTAGE CHART

(DC VOLTS)

	1(IN)	2(OUT)	3(GND)	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	REMARKS
Q1008	8.53	0	—	—	8.53	4.60	0	8.47	3.68	0.08	0.08	0.08	—	—	—	—	3.94	0			
Q1015	3.28	3.19	7.43	—	7.53	—	3.28	0.30	0												
Q1019	2.42	4.96	0	2.83	—	4.39	—	2.43													
Q1020	0	5.03	—	—	5.01	5.06	0	4.37	—	2.08	—	0.70	0.70	0.12	—	—	2.19	—	2.16	5.07	
Q1022	2.41	4.91	5.01	2.51	0	—	—	2.43													
Q1023	7.52	2.93	0	0	0	7.53	0	7.53	0	0	7.53	0	0	0	0	0	0	0	0.30	0	
Q1034	8.88	5.01	0																		

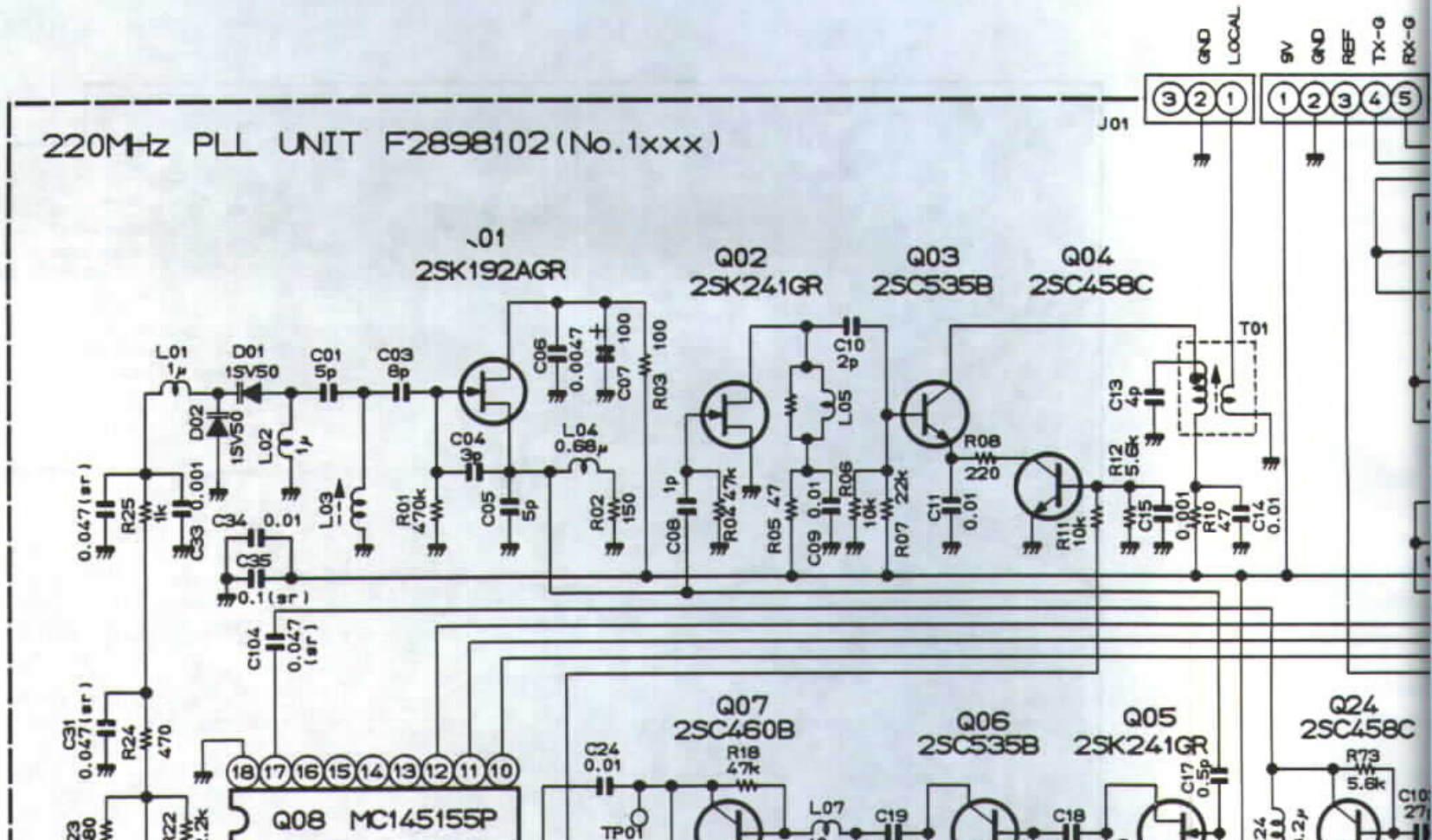


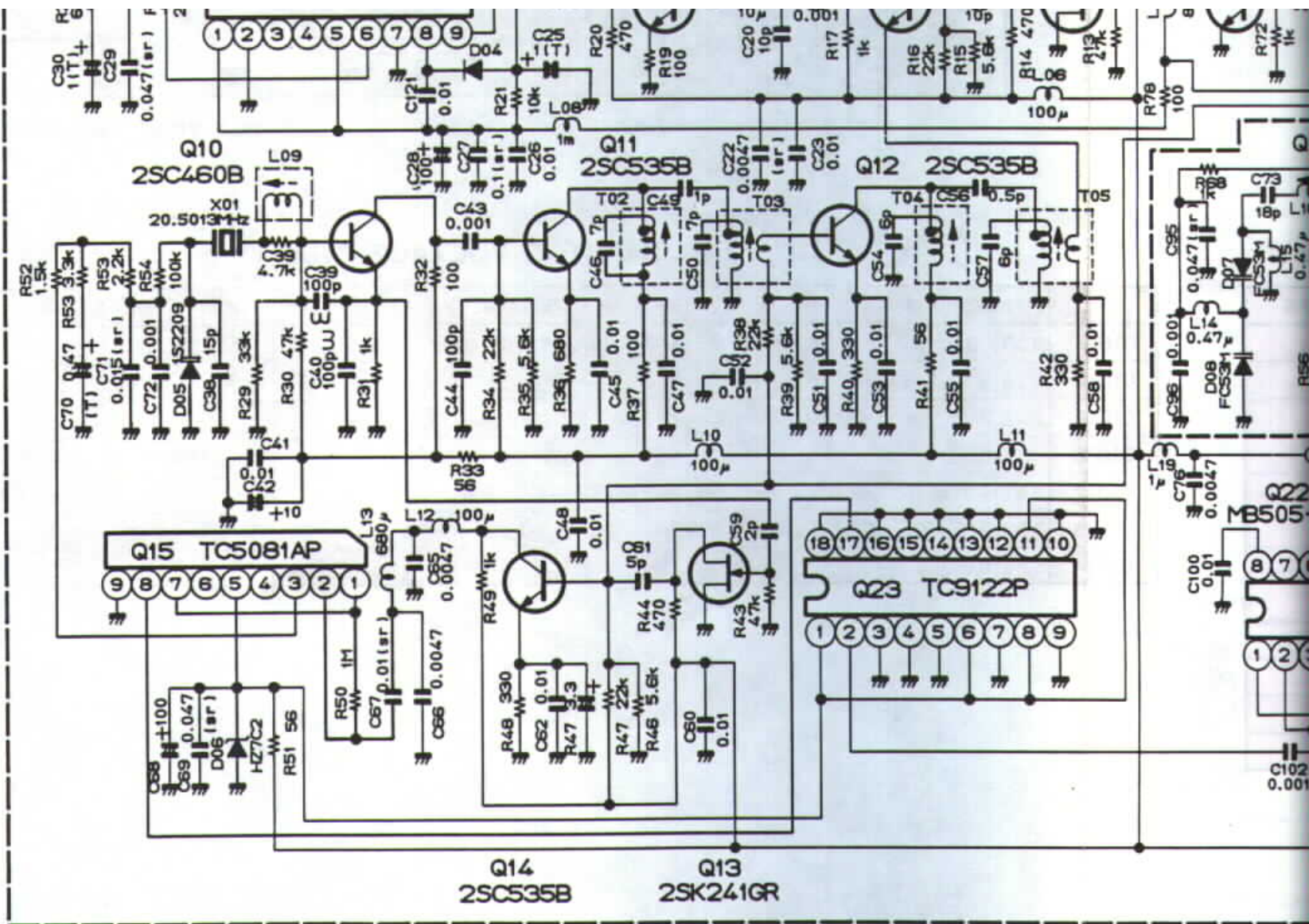


LESS OTHERWISE NOTED.

DIODES ARE TYPE 1SS270 UNLESS OTHERWISE NOTED.
 (T) CAPACITORS ARE TANTALUM.
 (sr) CAPACITORS ARE SEMICONDUCTOR CERAMIC, 25Vv:

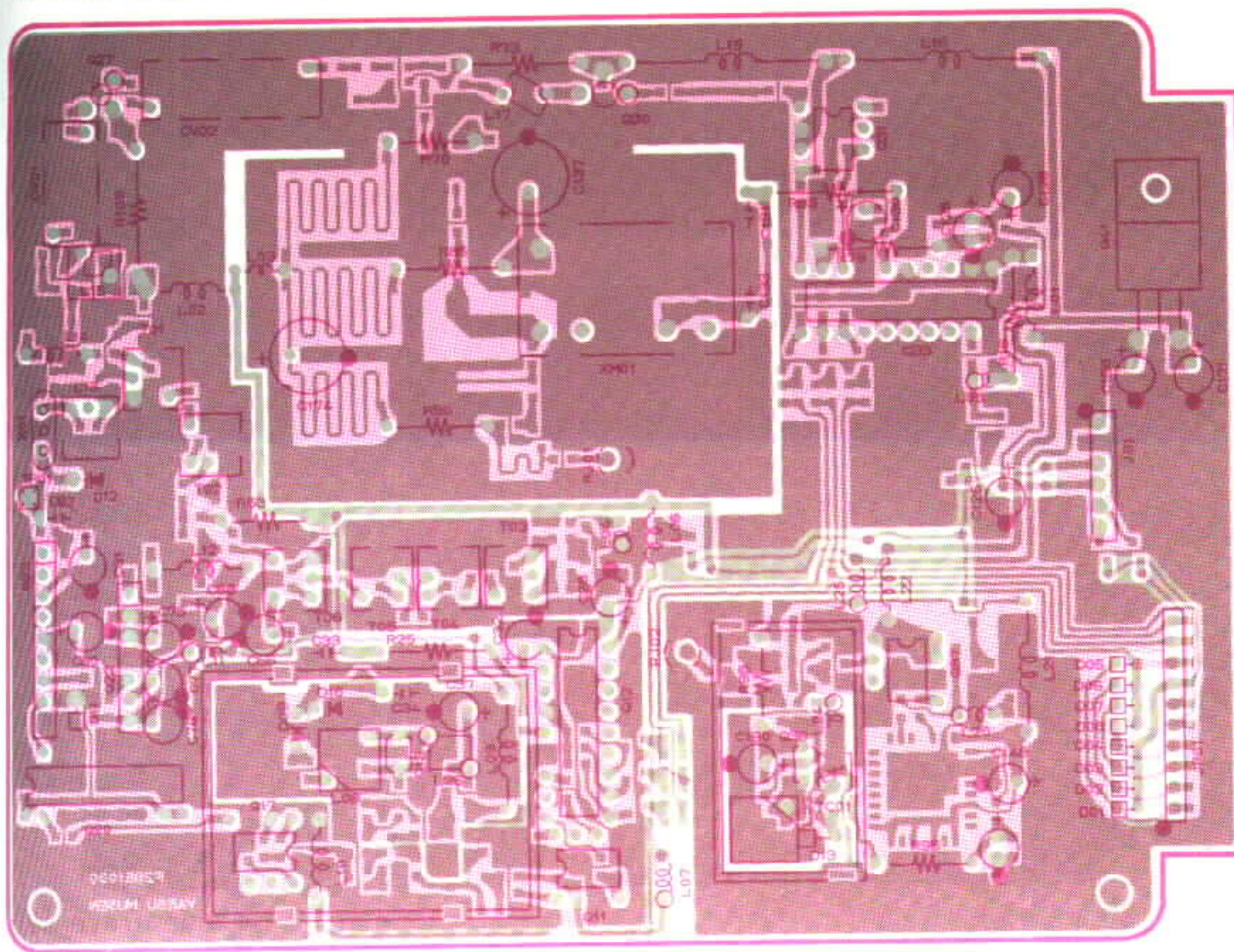
220MHz BAND MODULE(FEX-736-220) OPTION



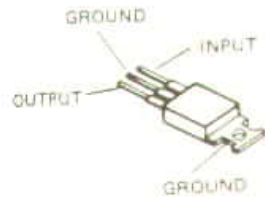


RESISTOR VALUES ARE IN Ω , 1/6W;
 CAPACITOR VALUES ARE IN μ F.
 INDUCTOR VALUES ARE IN HENRIES, UNLESS OTHERWISE NOTED.

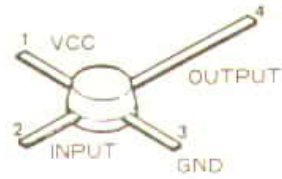
1200MHz PLL UNIT (No. 1XXX)



Component side (obverse)



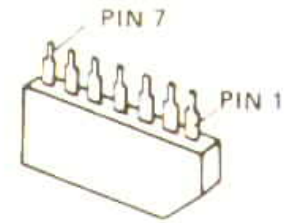
μPC7805H (Q1041)



μPC1651G (Q1027,1030)



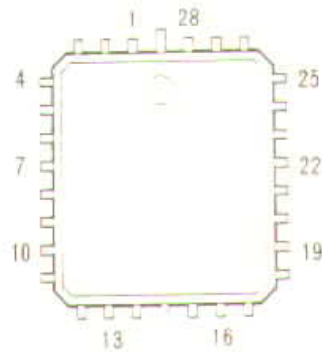
μPC1659G (Q1028)



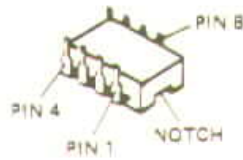
μPC577H (Q1022)



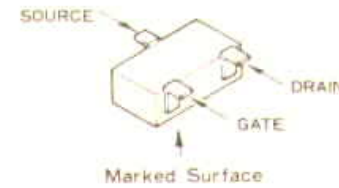
M148 (Q1029)



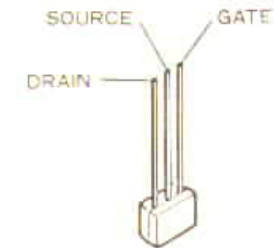
MC145163SL (Q1036)



MB503 (Q1031)
MB504L (Q1011)
μPB551C (Q1037)



2SK302Y (TY) (Q1019,1025)

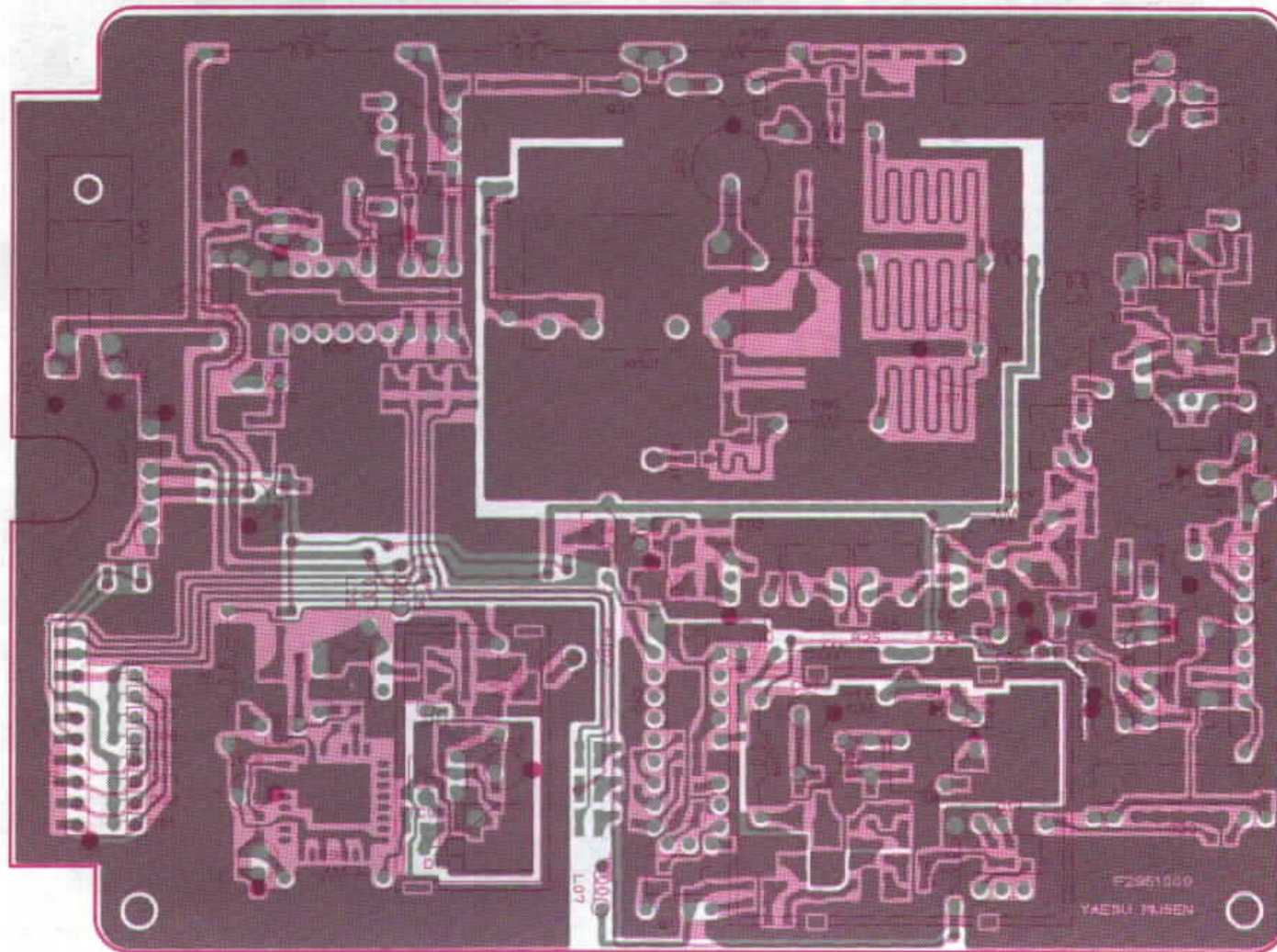


2SK507F (Q1013)



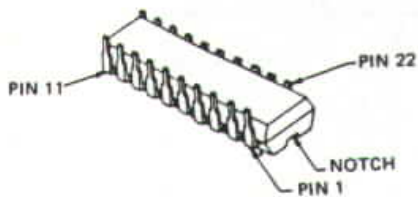
2SK192AGR (Q1012)

1200MHz BAND MODULE (FEX-736-1.2) OPTION

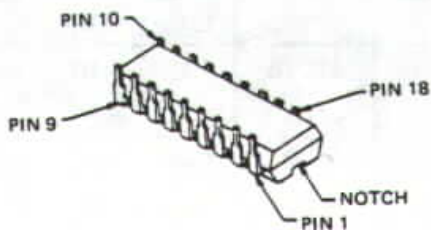


Component side (reverse)

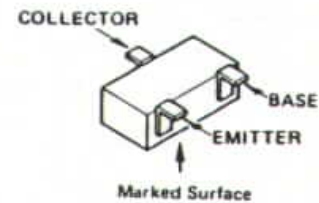
PIN 1



M145156P



MB505-16 (Q1017)



2SA812 (M6) (Q1032)

(22)

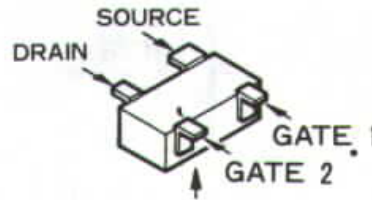
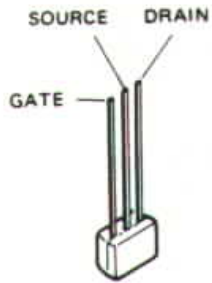
(Q1012,1033)

TC9122P (Q1020)

2SC1623 (L6)

(Q1001,1002,1003)
1004,1005,1006
1007,1008,1009
1010,1018

GATE



Marked surface

2SC2620 (QB)

(Q1021,1024,1039)
1040

2SC2712 (LG)

(Q1009,1010,1035)

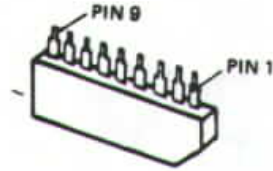
2SC3120 (HB)

(Q1014,1015,1016)
1026

2SC3356 (R22) (Q1034)

(3)

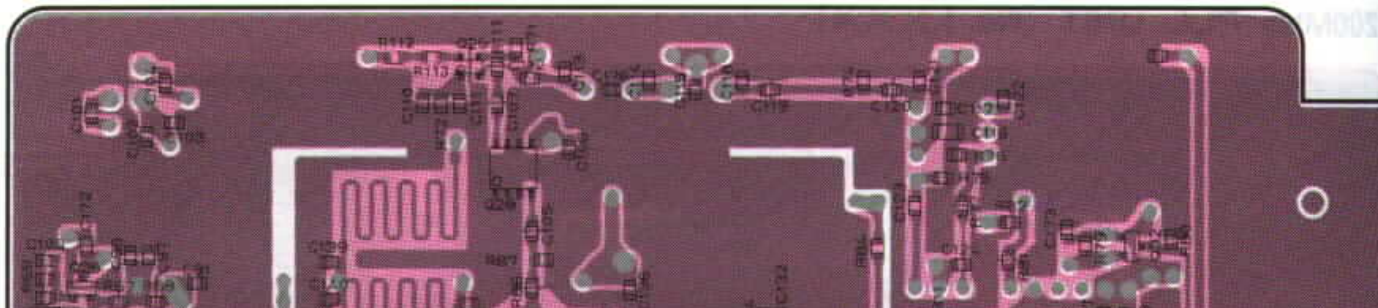
2SK192AGR (Q1038)

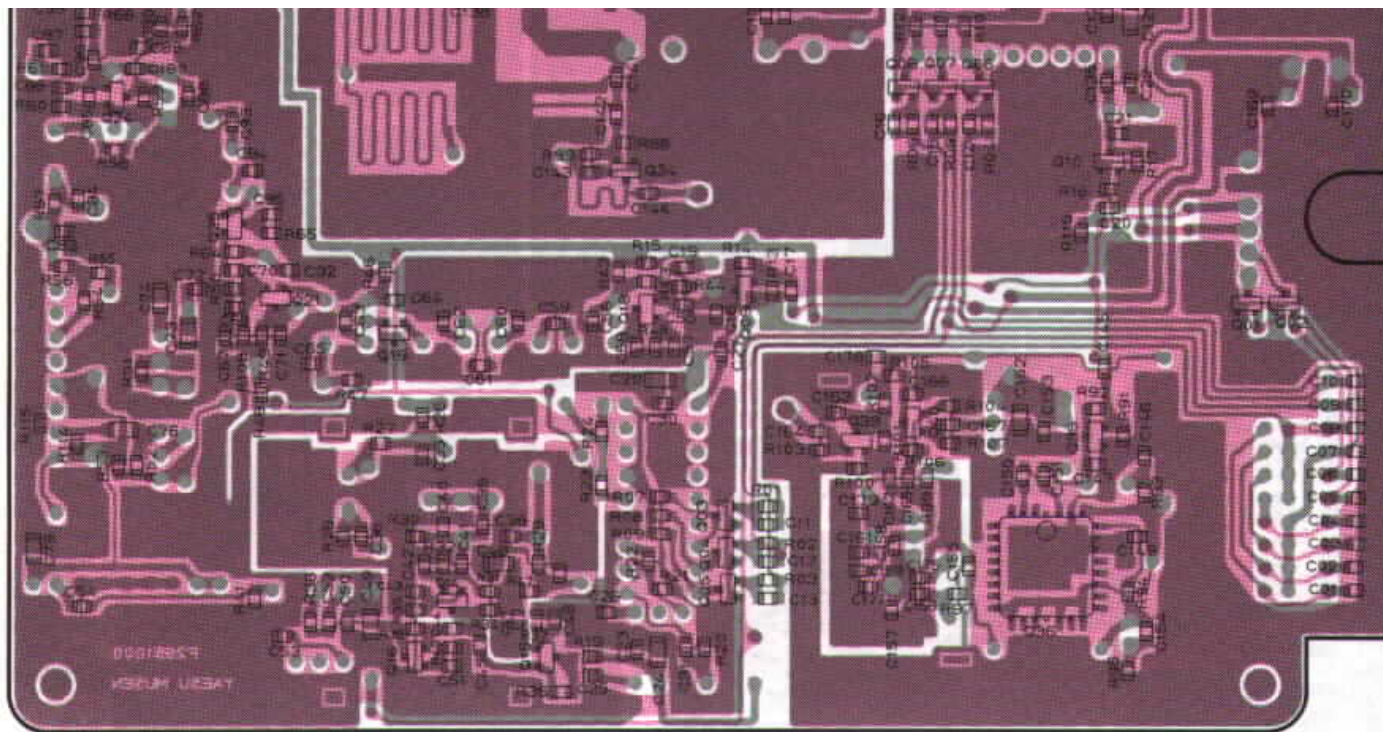


TC5081AP (Q1023)

3SK165 (J0) (Q1029)

OPTION





Chip side (reverse)

1200MHz PLL UNIT IC VOLTAGE CHART

(DC VOLTS)

	1(IN)	2(GND)	3(OUT)	4	5	6	7	8	9	10	REMARKS
Q1011	2.37	4.96	0	2.74	0	3.20	—	2.39			
Q1017	2.35	2.35	4.95	0	2.52	0	—	—	2.35		
Q1022	5.15	1.79	1.79	0	4.30	1.94	8.69				
Q1023	—	—	2.00	—	7.52	—	3.70	0.63	0		
Q1027	0.89	5.57	0	3.18							
Q1028	0.74	0	0	0	5.79	0	0	8.62			
Q1030	0.88	4.77	0	3.07							
Q1031	2.37	4.87	4.87	2.80	0	3.49	—	2.37			
Q1037	4.83	3.21	0	0	2.35	0	4.83				
Q1041	8.87	0	5.00								

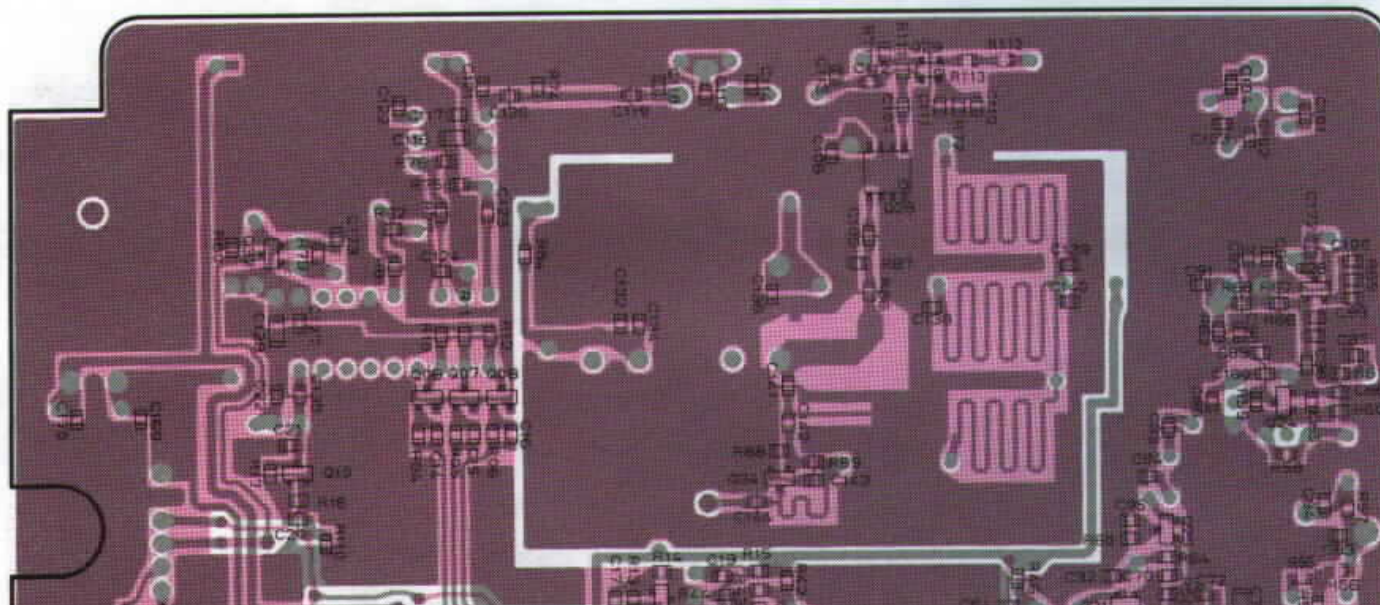
1200MHz PLL UNIT IC VOLTAGE CHART

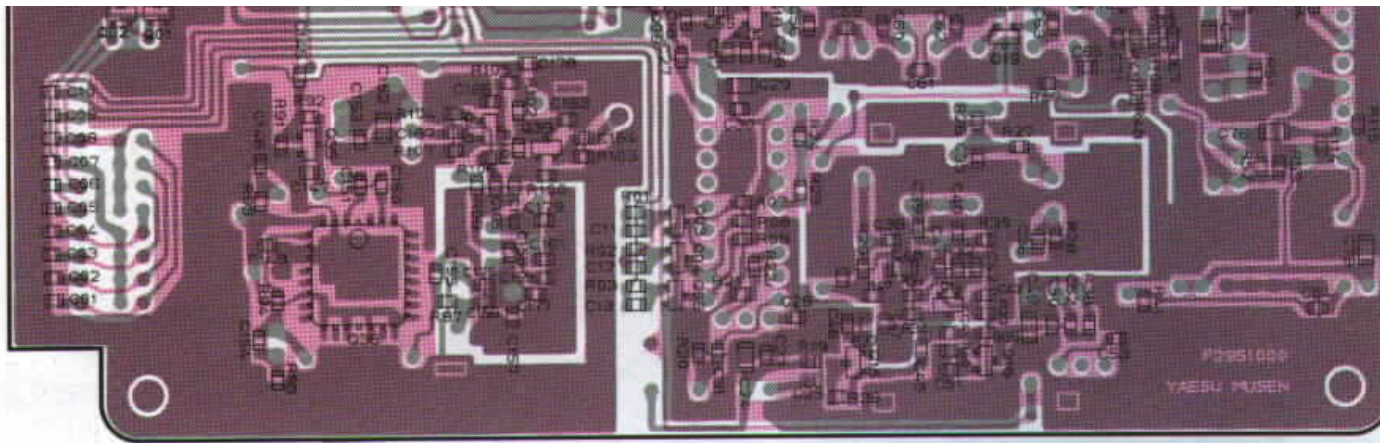
(DC VOLTS)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Q1012	0	8.54	—	—	8.54	1.24	0	7.50	—	3.91	0.05	0.05	0.05	—	—	—	—	—	3.76
Q1020	7.52	0	0	0	0	0	0	7.52	7.52	0	0	0	0	0	0	0	0.63	0	
Q1033	7.80	7.80	—	—	7.80	4.42	0	7.61	7.74	3.53	0.05	0.05	0.05	—	—	—	—	4.22	3.49
Q1036	4.26	0	8.63	5.38	0	0	—	—	8.63	—	—	8.63	—	8.63	8.03	—	8.63	8.63	—
	20	21	22	23	24	25	26	27	28										
Q1012	8.85																		
Q1020																			
Q1033	0																		
Q1036	—	—	—	—	—	—	—	4.19	—										

— 46 —

1200MHz BAND MODULE (FEX-736-1.2) OPTION





Chip side (obverse)

1200MHz PLL UNIT VOLTAGE CHART

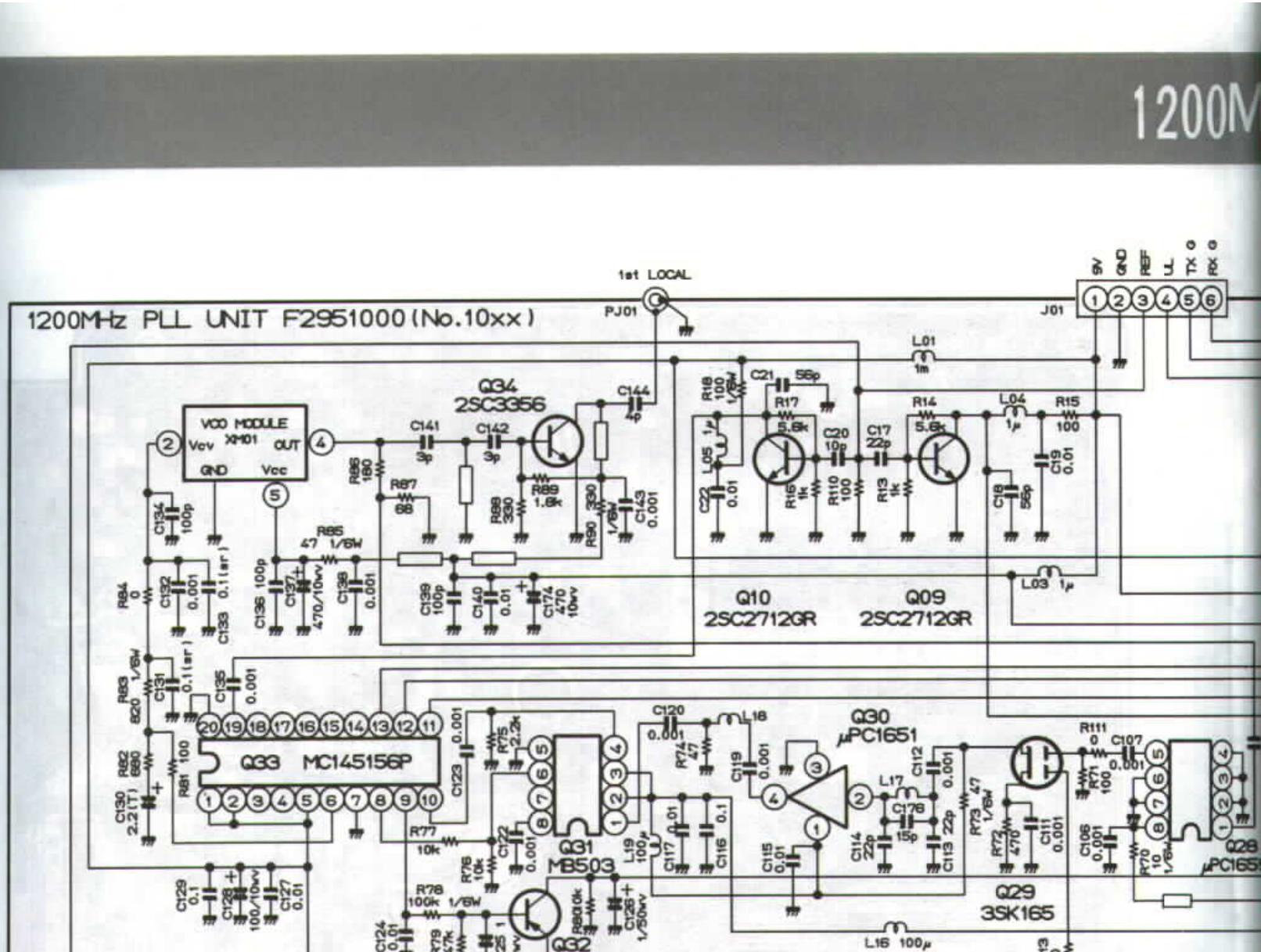
(DC VOLTS)

	E(S)	O(D)	(G ₁) ^B	(G ₂)	REMARKS		E(S)	O(D)	(G ₁) ^B	(G ₂)	REMARKS
Q1001	0	0.10/8.70	0.81/0		RX/TX	Q1018	1.17	7.10	0.45		
Q1002	0	8.90/0.01	0		RX/TX	Q1019	0	8.2	0		
Q1003	0	0.05	5.60			Q1021	0.94	7.80	1.60		
Q1004	0	0.05	5.60			Q1024	3.40	8.50	4.10		
Q1005	0	0.05	5.60			Q1025	0.46	8.30	0		
Q1006	0	0.05	5.60			Q1026	0.84	8.60	1.50		
Q1007	0	0.05	5.60			Q1029	1.58	4.60	0	0	
Q1008	0	0.05	5.60			Q1032	7.78	0	0.74		
Q1009	0	5.02	0.67			Q1034	0	5.00	0.75		
Q1010	0	5.02	0.68			Q1035	0	5.30	0.68		
Q1013	1.06	8.65	0			Q1038	1.77	8.28	0		
Q1014	1.29	4.57	2.02			Q1039	2.93	8.16	3.67		
Q1015	0.41	3.10	1.14			Q1040	3.43	8.62	4.14		
Q1016	0.52	2.64	1.25								

	1(IN)
Q1011	2.31
Q1017	2.31
Q1022	5.11
Q1023	—
Q1027	0.81
Q1028	0.71
Q1030	0.81
Q1031	2.31
Q1037	4.81
Q1041	8.81

	1
Q1012	0
Q1020	7.52
Q1033	7.80
Q1036	4.26
	20
Q1012	8.85

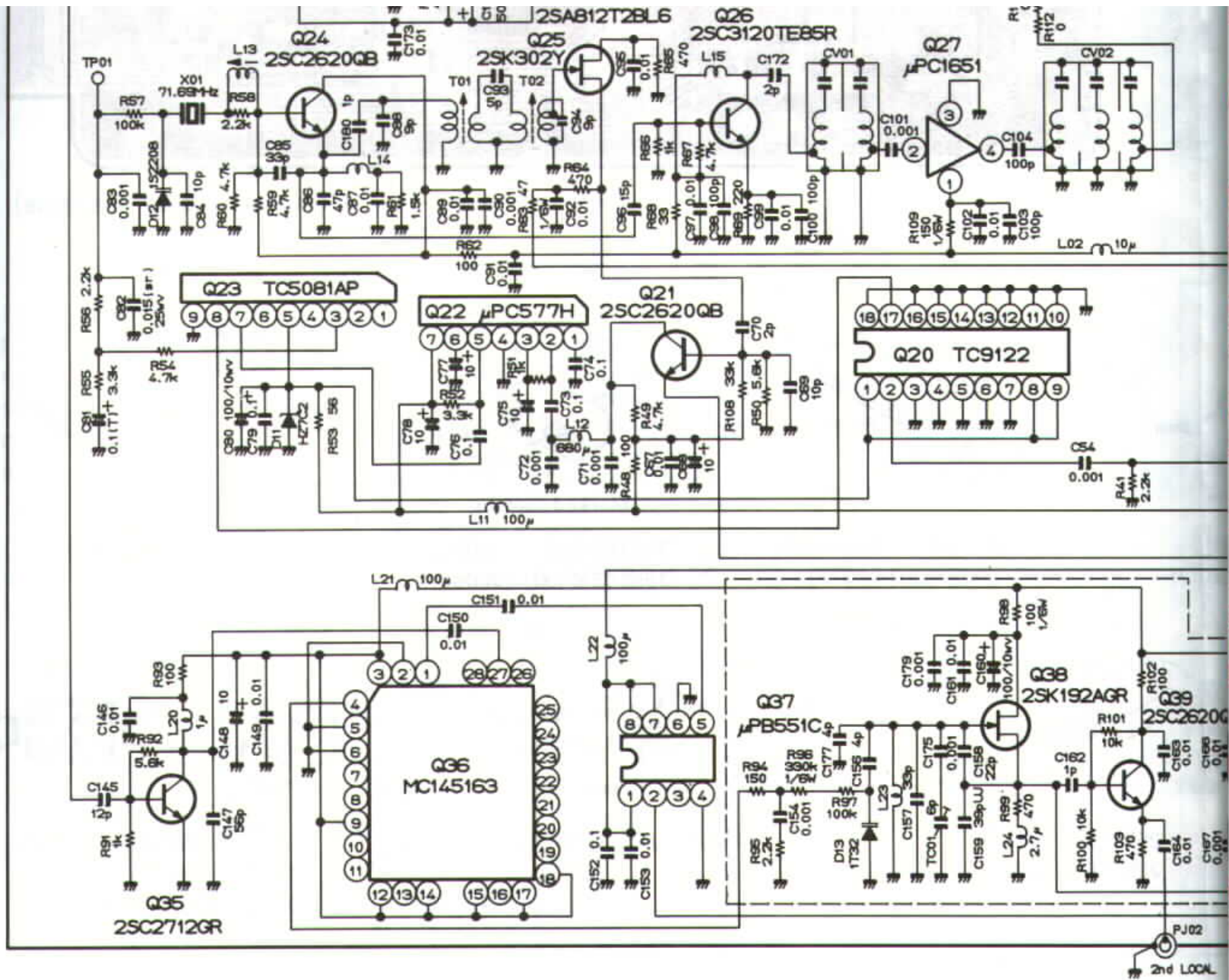
Q1020	
Q1033	0
Q1036	-



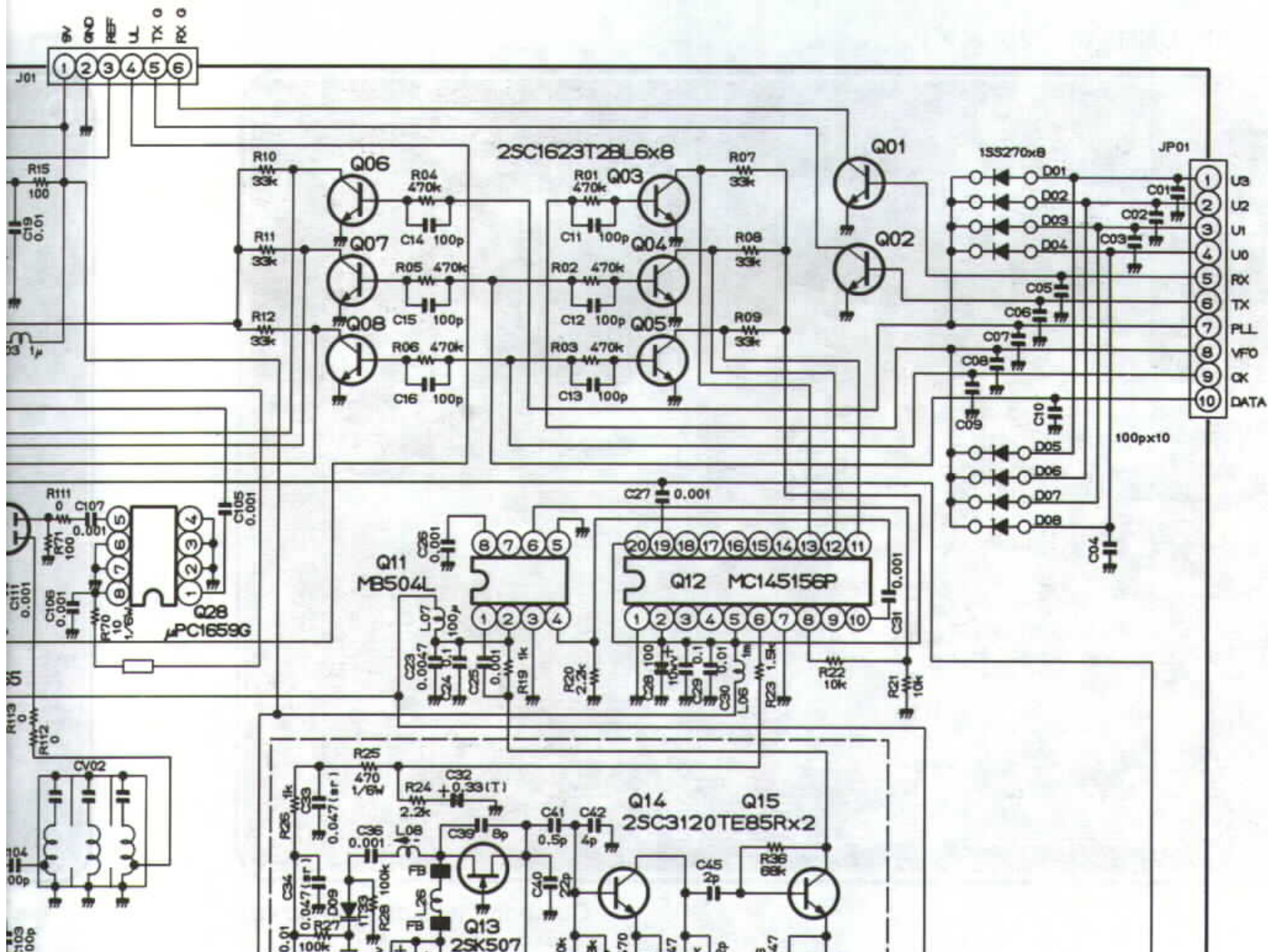
1200M

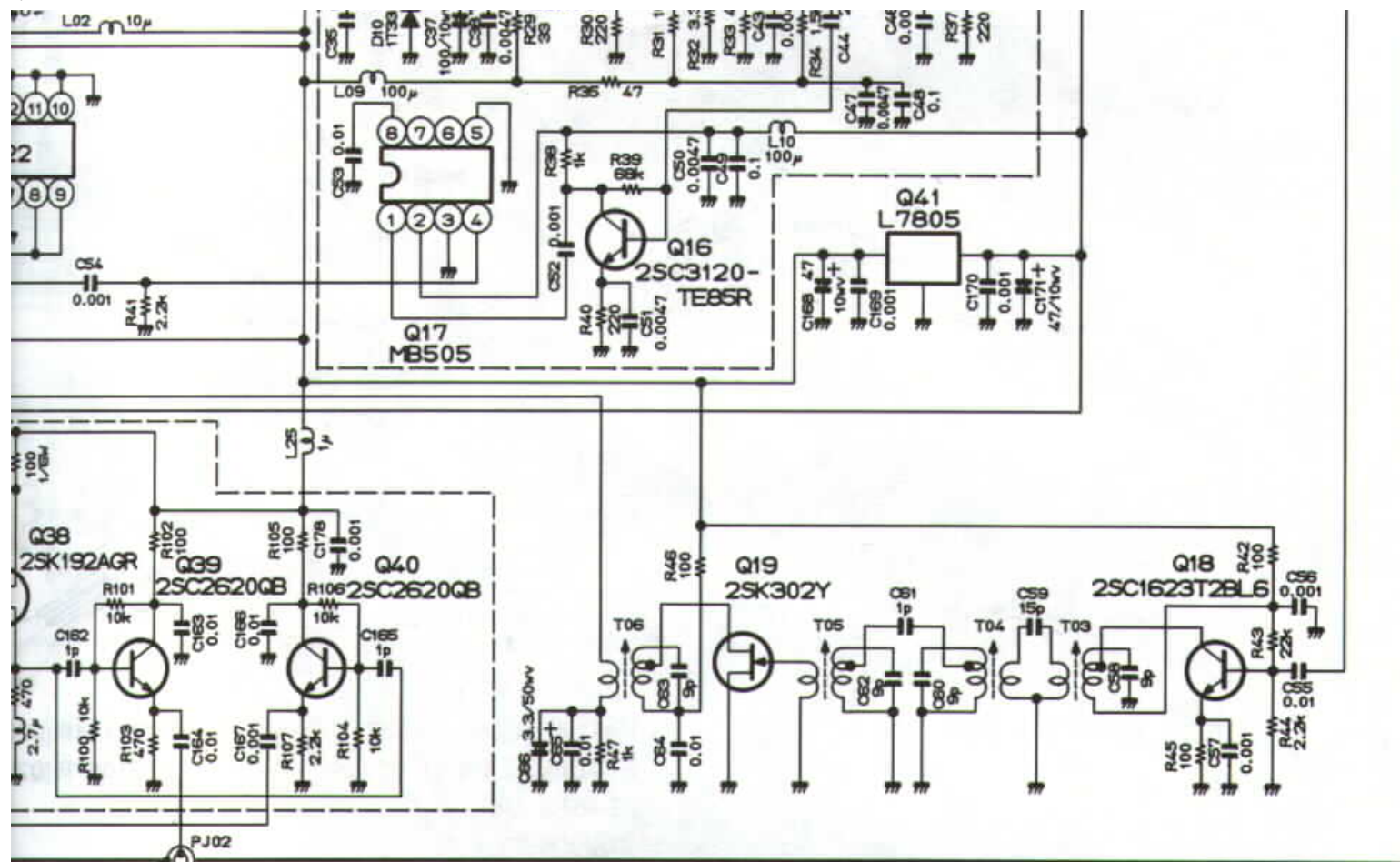
se)

19
76
49



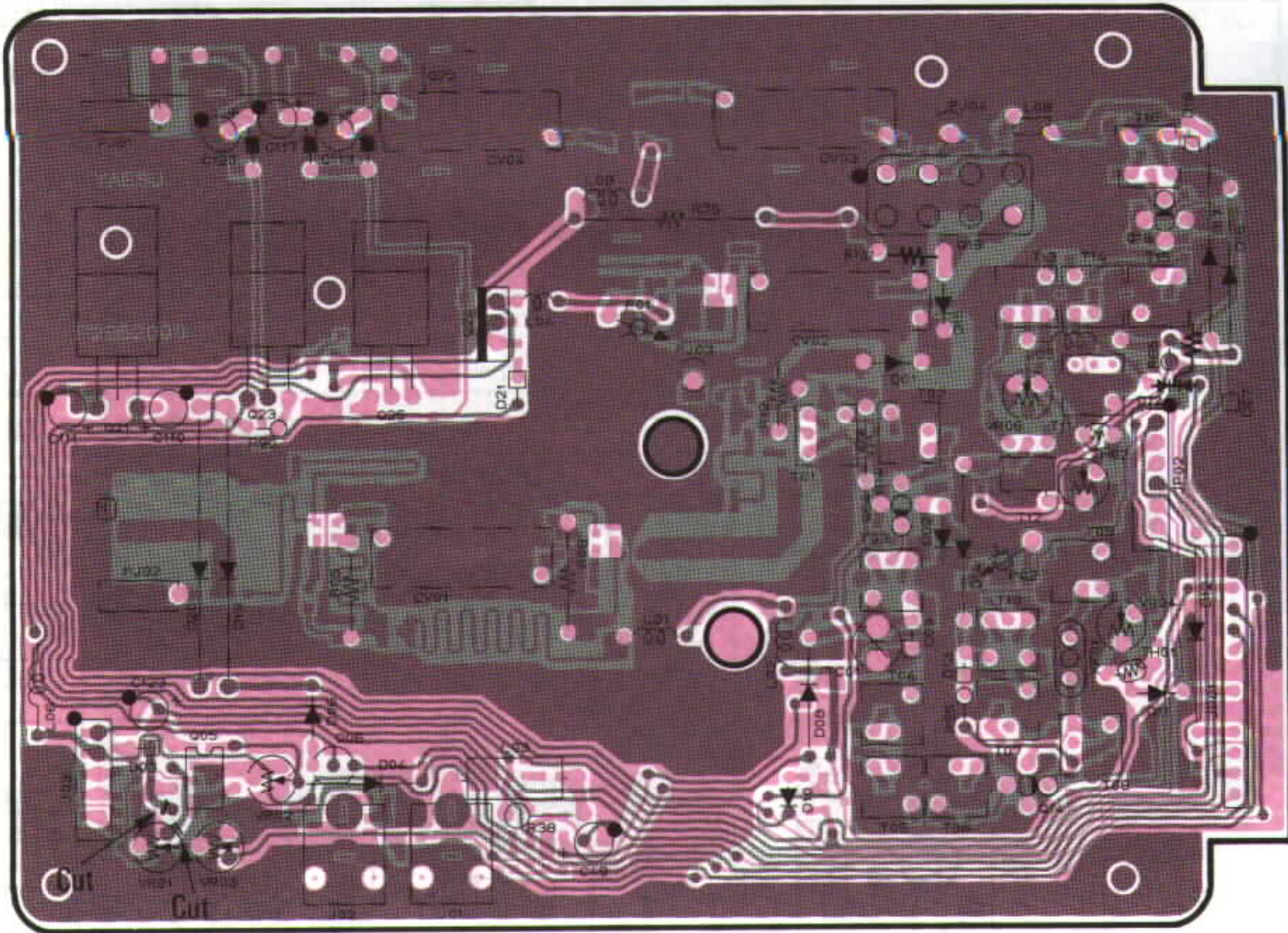
1200MHz BAND MODULE (FEX-736-1.2) OPTION



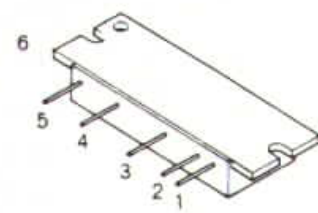
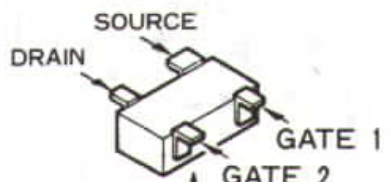
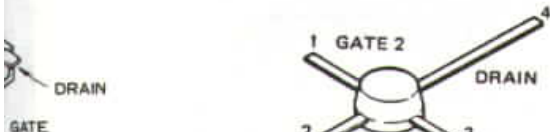


RESISTOR VALUES ARE IN Ω , 1/10W;
 CAPACITOR VALUES ARE IN μ F, 50V;
 INDUCTOR VALUES ARE IN HENRIES.

(T) CAPACITORS ARE TANTALUM.
 (C) CAPACITORS ARE SEMICONDUCTOR CERAMIC, 25V,
 UNLESS OTHERWISE NOTED.



Component side (reverse)



- 1. INPUT
- 2. Vcc₁
- 3. Vcc₂
- 4. Vcc₃
- 5. OUTPUT
- 6. CL A



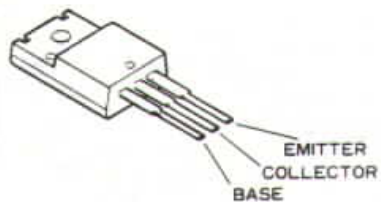
Marked surface

G)
(2017)

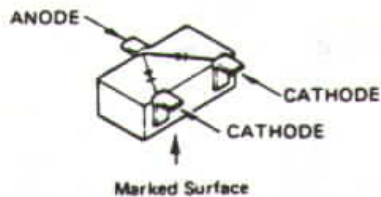
3SK122L
(Q2004,2014,2018)

3SK164-0 (F0) (Q2001)
3SK165-0 (J0) (Q2003)

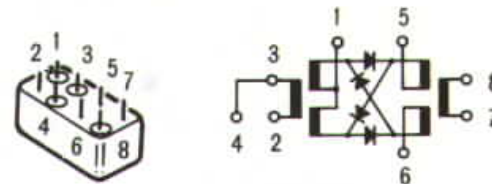
M67715 (Q2022)



2SB1134R (Q2023)
2SD1667R (Q2025)



1SS181 (A3) (D2005)

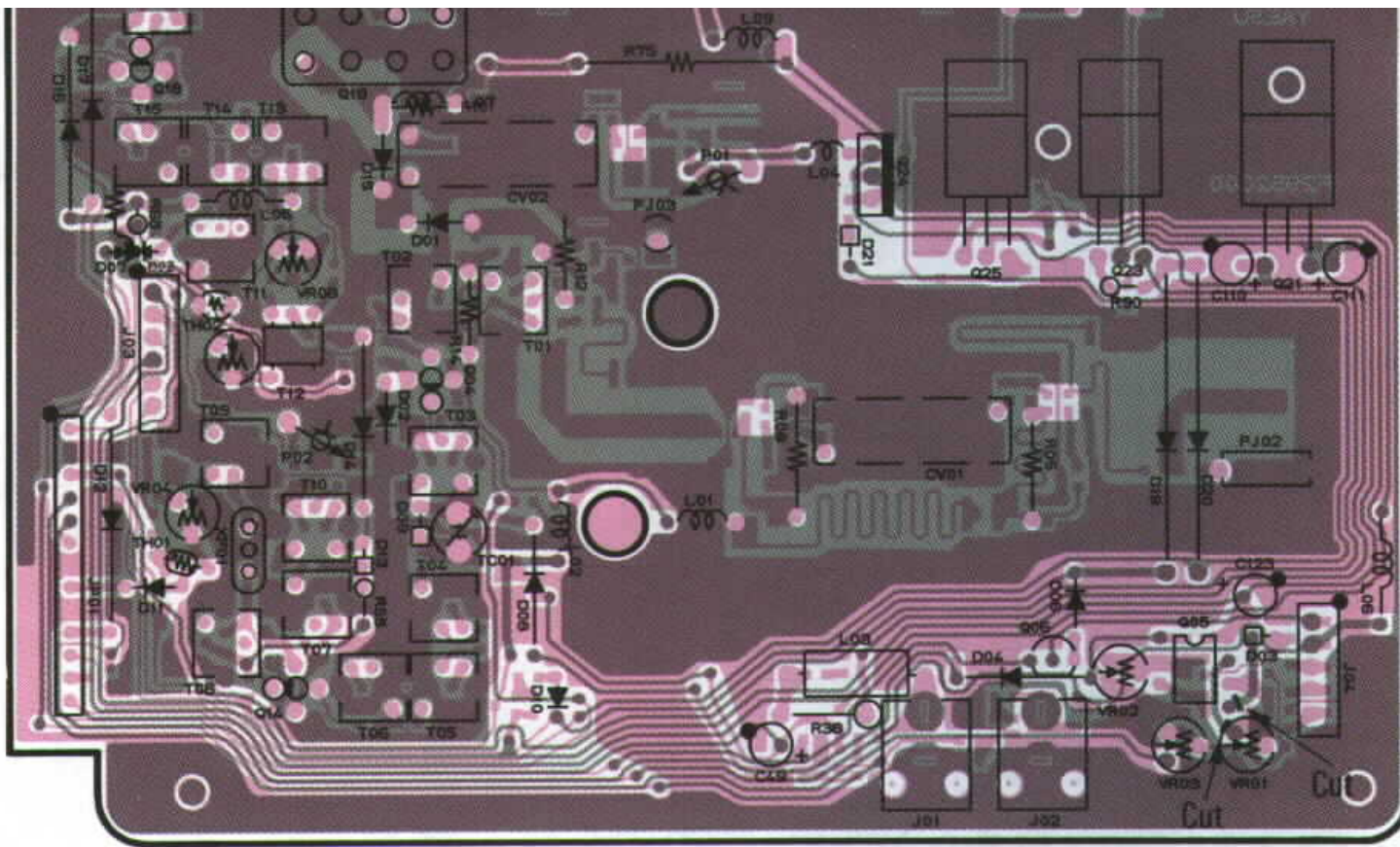


1.RF (IF) 2,5,6,7.CASE GND
3,4.IF (RF) 8.LO
DM-600A24 (Q2019)

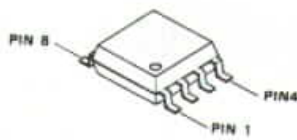
1200MHz BAND MODULE (FEX-736-1.2) OPTION

1200MHz RF UNIT (No. 2XXX)

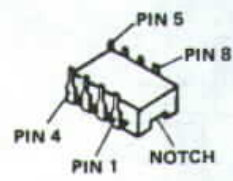




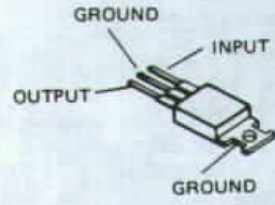
Component side (obverse)



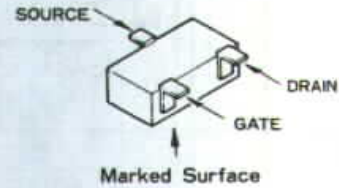
μPC1659G (Q2020)



LA6358 (Q2005)



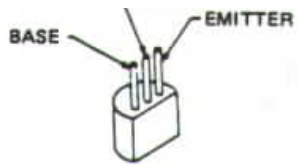
L7809 (Q2021)



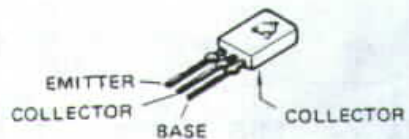
2SK302GR (TG)
(Q2015,2016,2017)

COLLECTOR

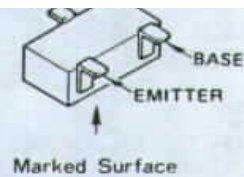
COLLECTOR



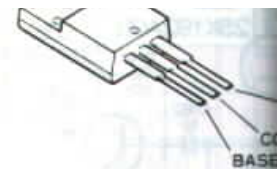
2SA1528 (Q2006)



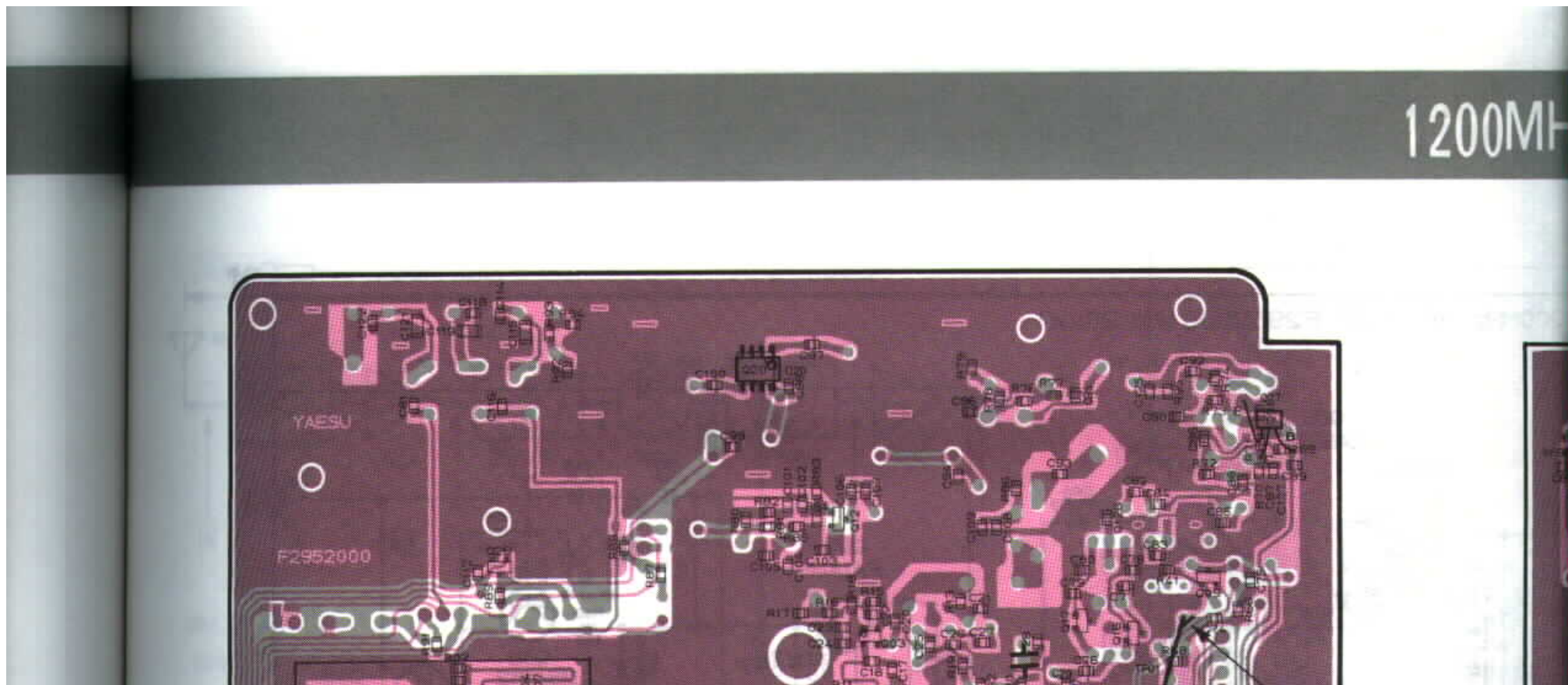
2SB772P (Q2024)

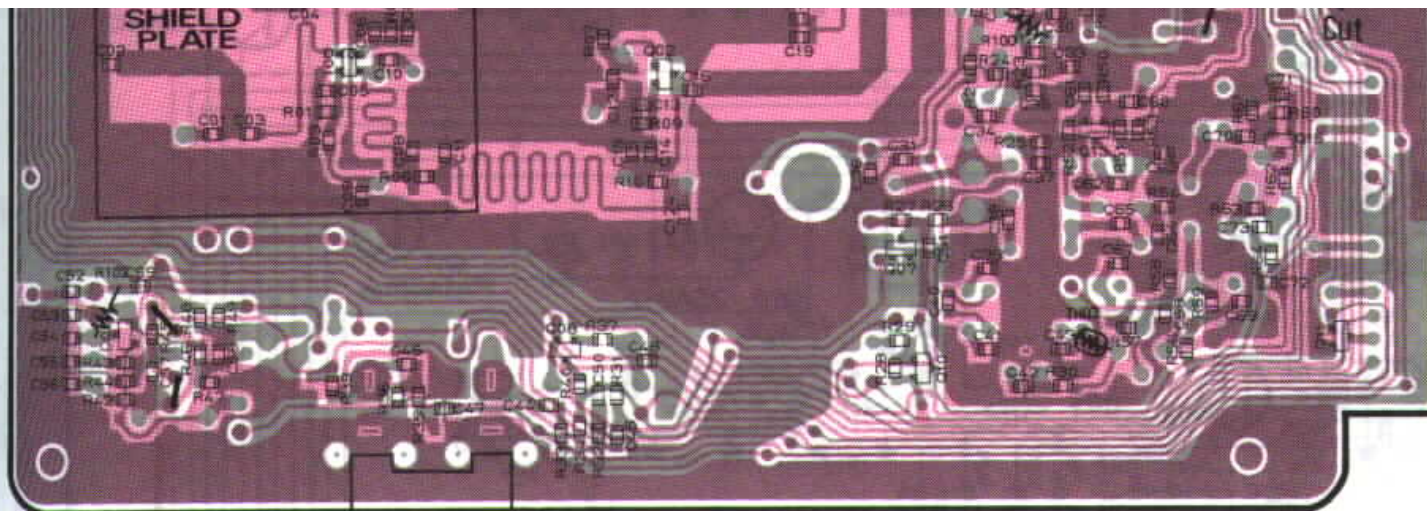


- FA1L4L (L30) (Q2027)
- FA1L4M (L31) (Q2007,2011)
- 2SA812 (M6)
(Q2008,2009,2010)
- 2SC1623 (L6) (Q2026)
- 2SC2620 (QB) (Q2013)
- 2SC3356 (R22) (Q2002,2012)



- 2SB1134R (Q2014)
- 2SD1667R (Q2015)



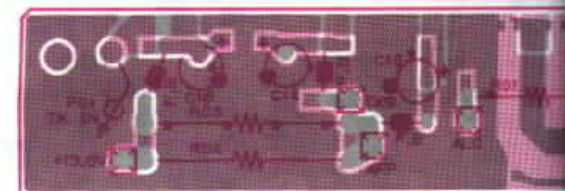


Chip side (obverse)

1200MHz RF UNIT VOLTAGE CHART

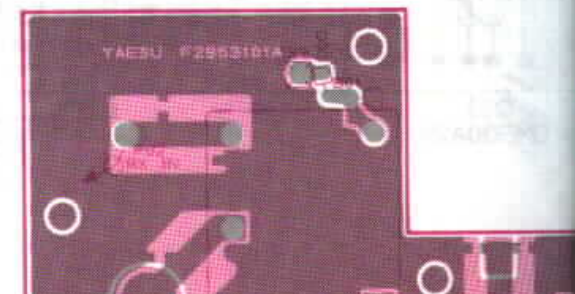
(DC VOLTS)

	E(S)	O(D)	(G ₁) ^B	(G ₂)	REMARKS		E(S)	O(D)	(G ₁) ^B	(G ₂)	REMARKS
Q2001	0.78	8.17	0	1.95		Q2013	1.24	7.87	1.91		
Q2002	0.10	7.78	0.84			Q2014	0.13	8.53	0	0	
Q2003	1.6	7.2	0	0		Q2015	4.16	8.72	4.36		
Q2004	1.40	7.80	1.01	2.00		Q2016	1.0	8.4	0		
Q2006	0/12.50	0/12.50	0/0.79		PRE AMP OFF/ON	Q2017	1.0	8.4	0		
Q2007	13.38/13.26	0/13.20	13.38/11.04		W/O TV UNIT/W/TV UNIT	Q2018	1.15	7.63	1.30	3.70	
Q2008	13.30/12.30	0/13.20	13.30/13.14		W/O TV UNIT/W/TV UNIT	Q2023	13.4	13.3	12.7		
Q2009	0	0	0			Q2024	8.97/8.91	0/8.77	8.97/8.13		RX/TX
Q2010	8.87/8.80	8.77/8.76	0		W/O TV UNIT/W/TV UNIT	Q2025	0/7.90	0/8.73	0/8.48		RX/TX
Q2011	0	0	0/8.41		RX/TX	Q2026	0	0	0		
Q2012	0	7.15	0.73			Q2027	0	0/3.70	2.67/1.25		RX/TX

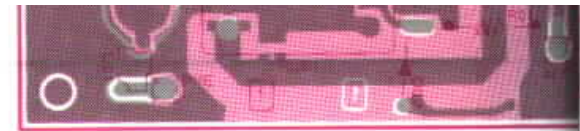


1200MHz RF UNIT IC VOLTAGE CHART (DC VOLTS)

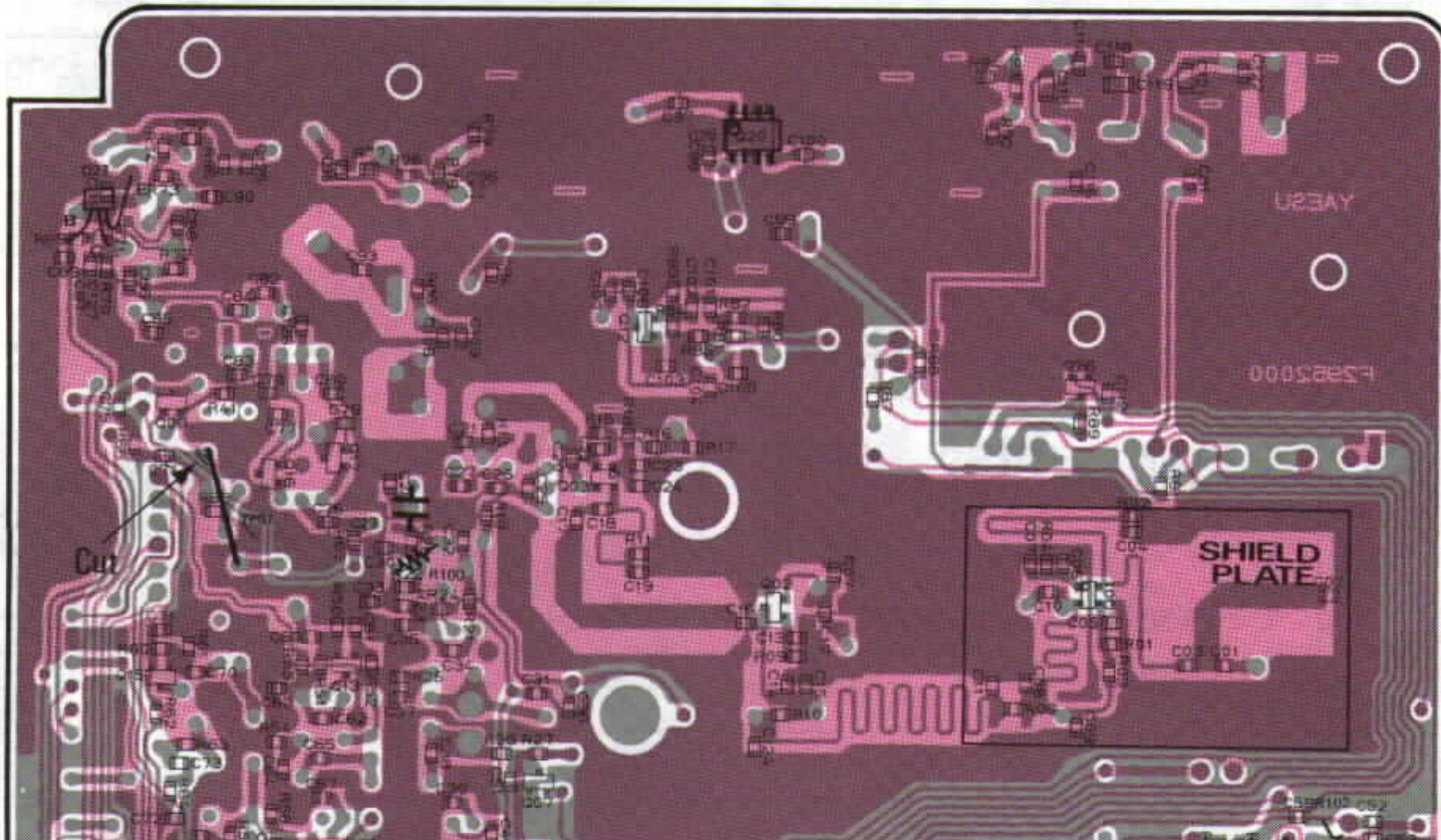
	1(IN)	2(GND)	3(OUT)	4	5	6	7	8	9	10	REMARKS
Q2005	1.07	1.90	0	1.84	6.38	6.38	1.00	8.93			@ 10W output
Q2019	0	0	0	-	0	0	0	0			
Q2020	0.74	0	0	0	5.84	0	0	8.70			

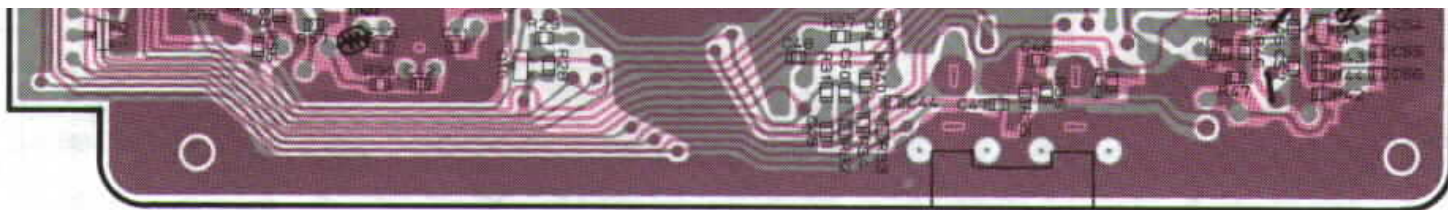


Q2021	12.6	0	9.0						
Q2022	-	7.64	7.64	7.64	-				
Q3001	-	13.8	9.0	13.2	-				@ 10W output



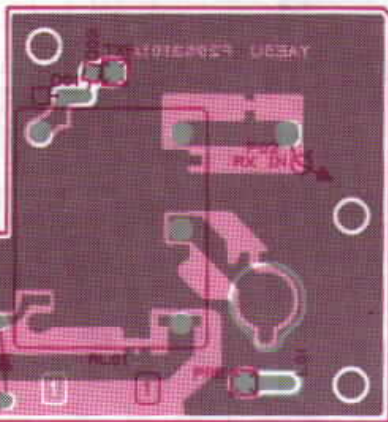
1200MHz BAND MODULE (FEX-736-1.2) OPTION



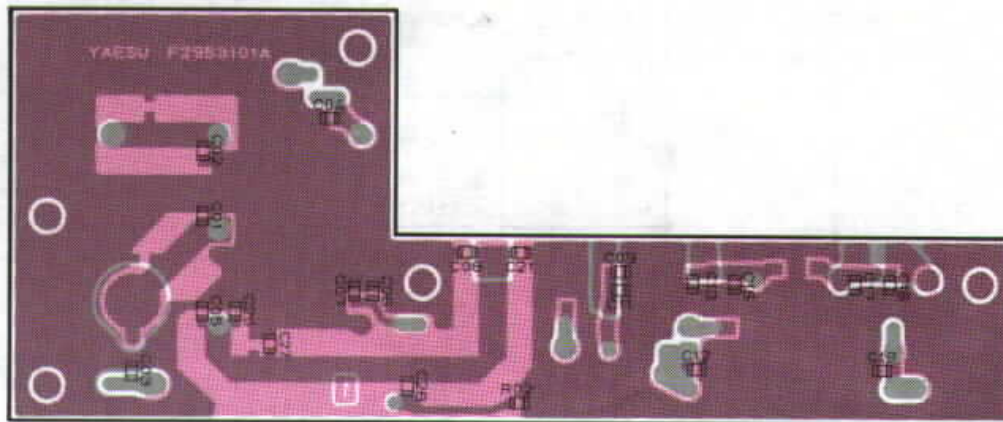


Chip side (reverse)

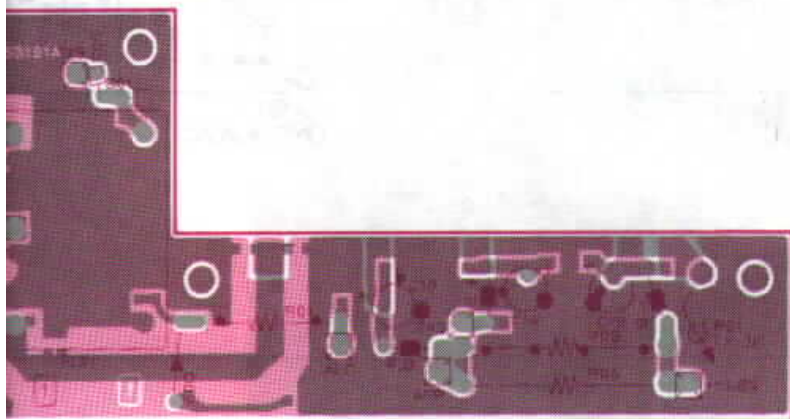
1200MHz PA UNIT (No. 3XXX)



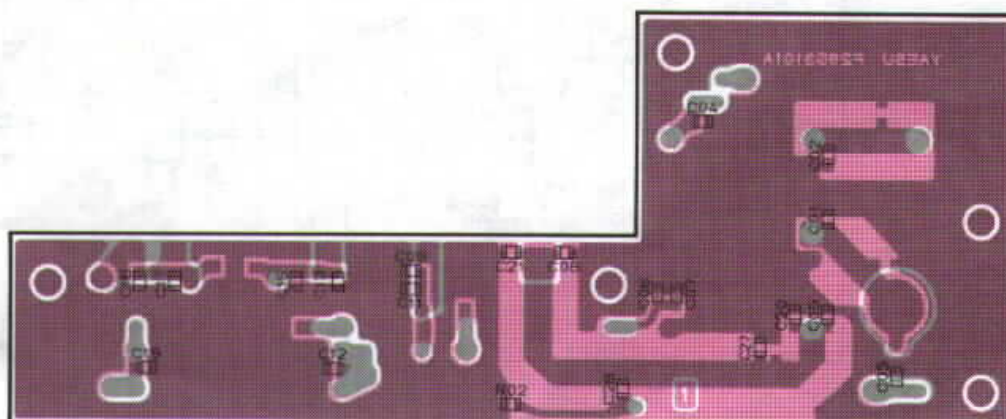
Component side (obverse)



Chip side (obverse)



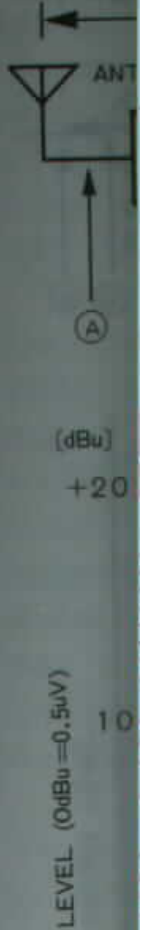
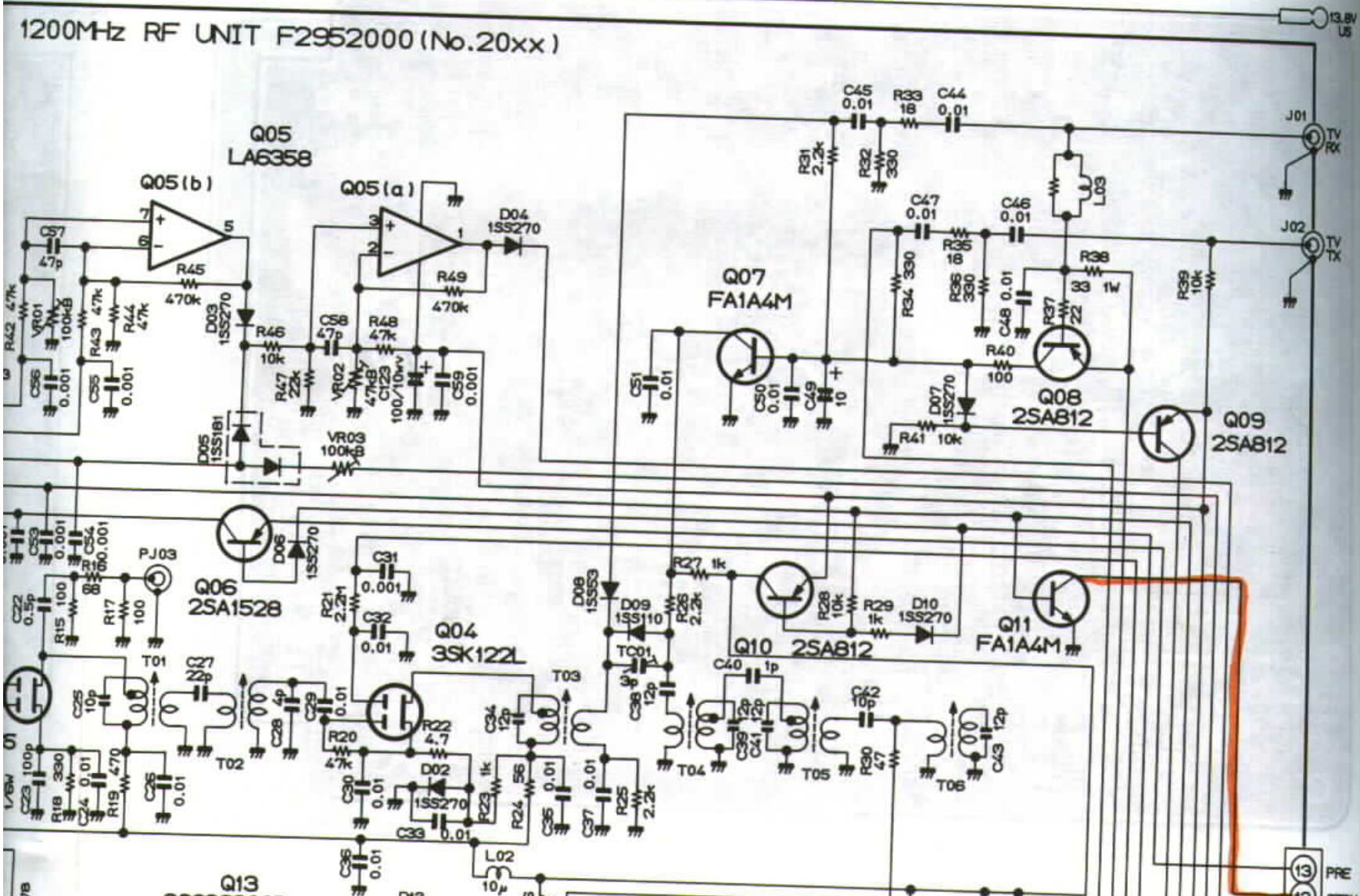
Component side (reverse)

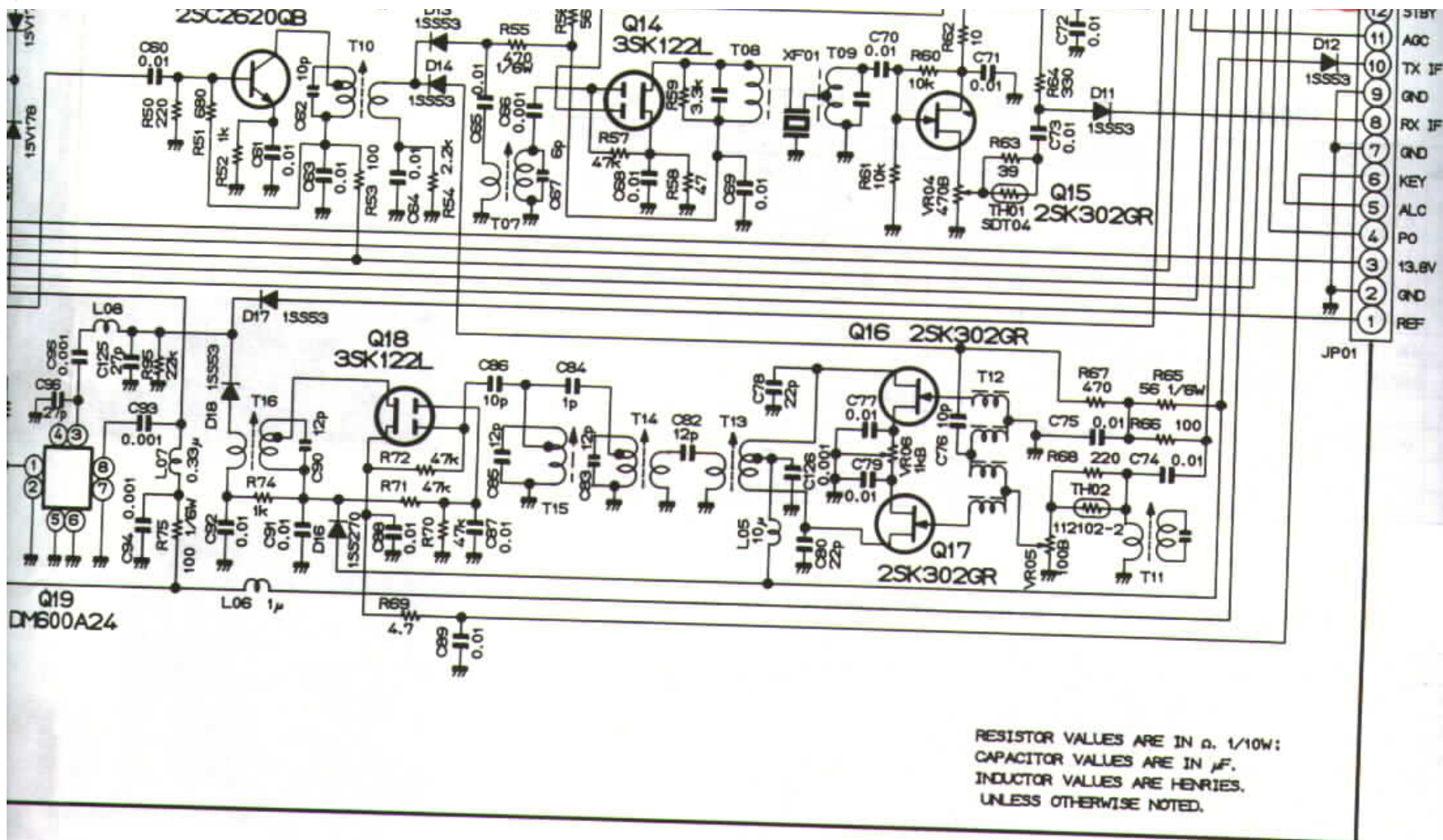


Chip side (reverse)

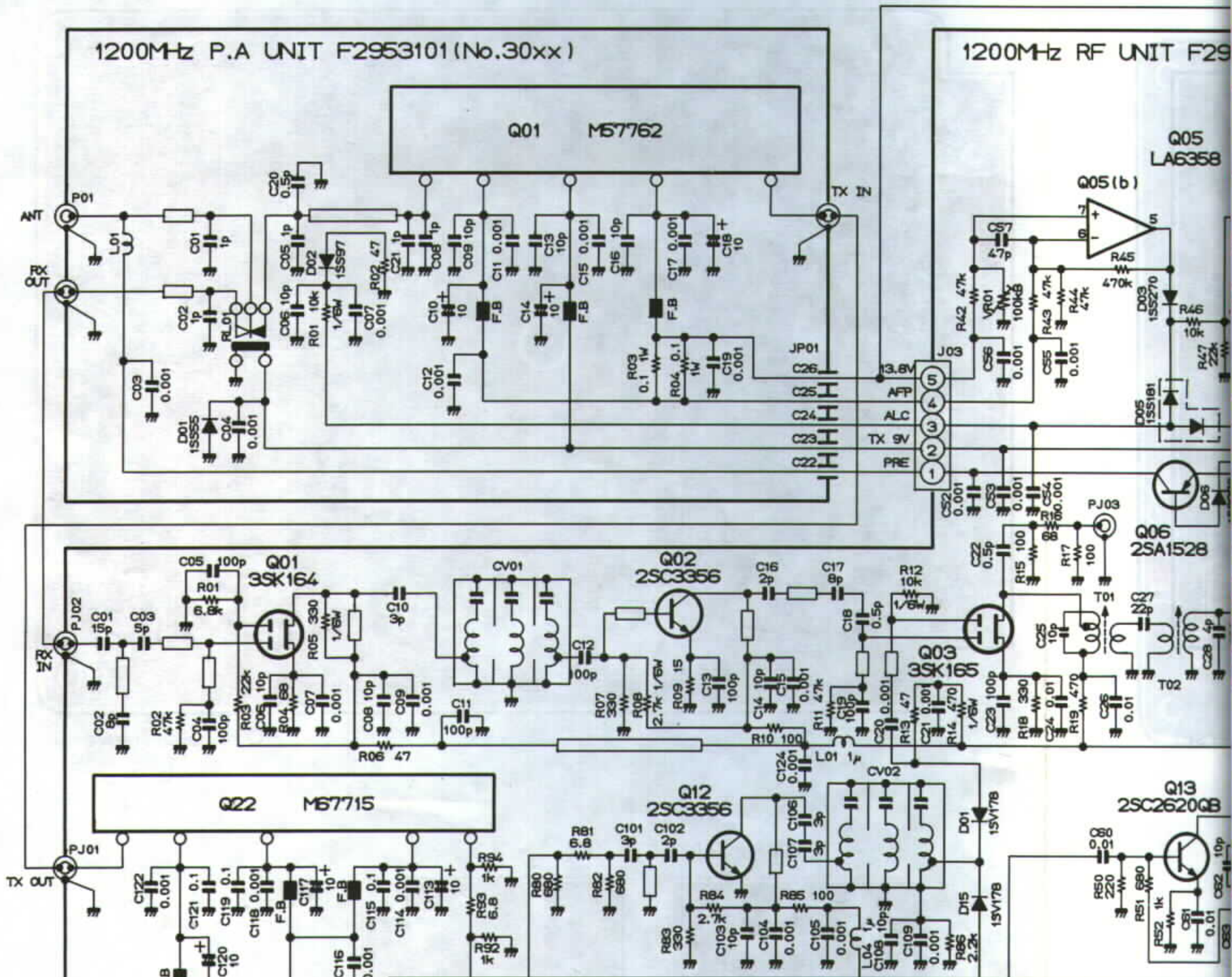
2) OPTION

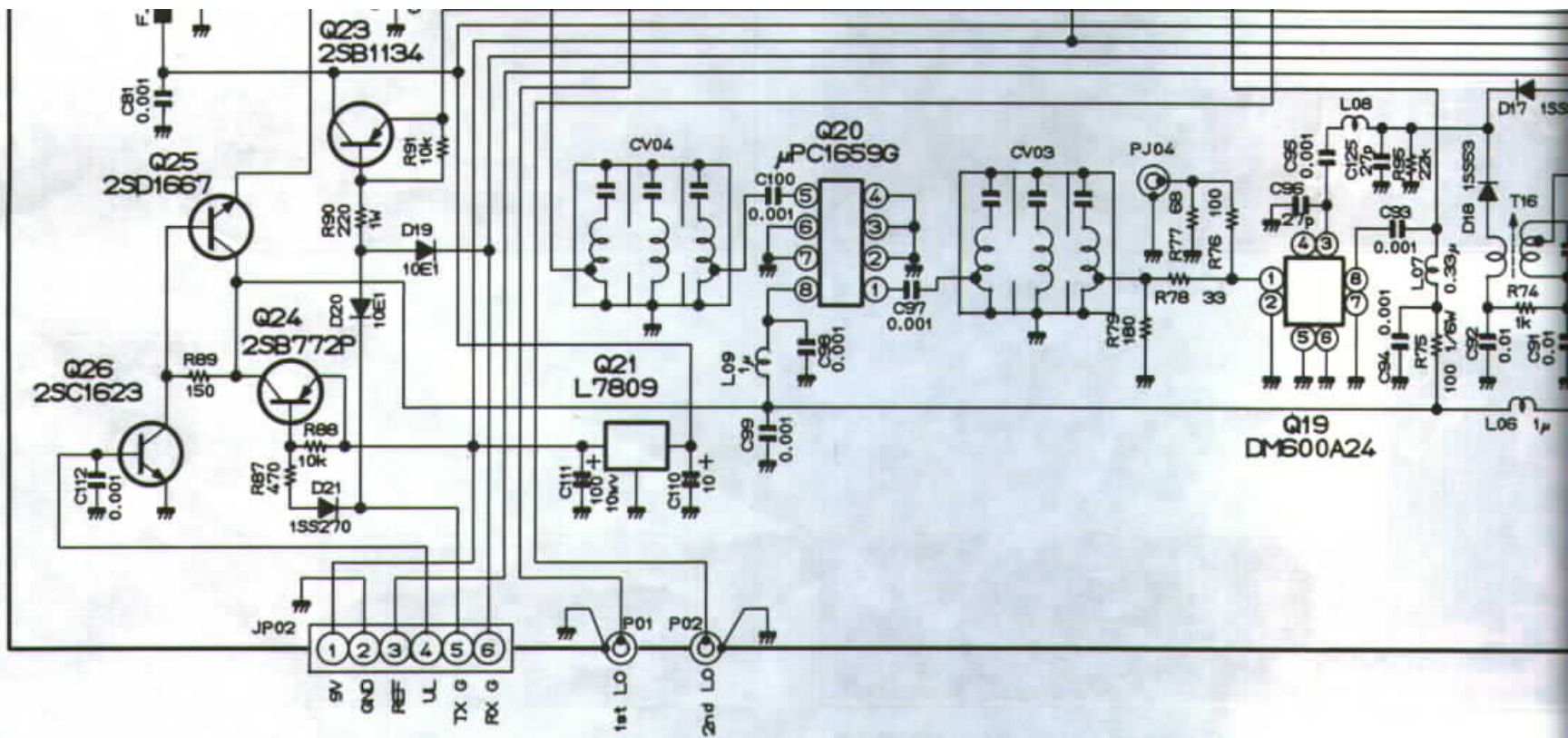
1200MHz RF UNIT F2952000 (No.20xx)



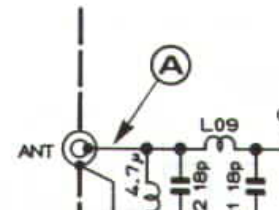
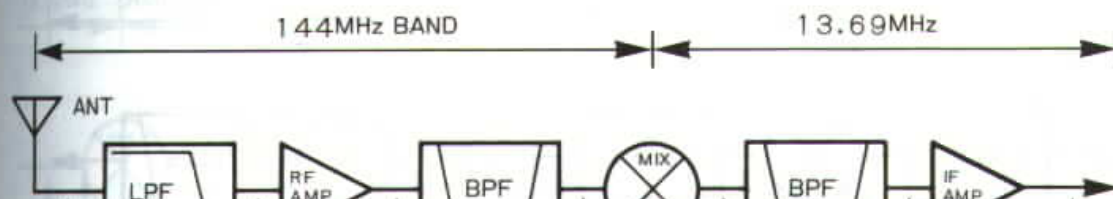


1200MHz BAND MODULE (FEX-736-1.2) OPTION



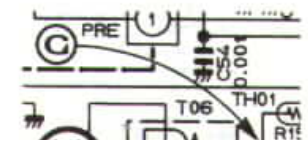
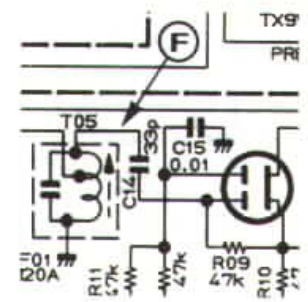
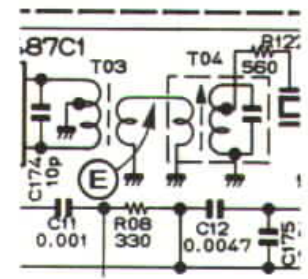
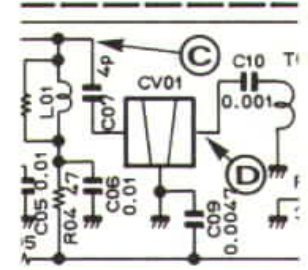
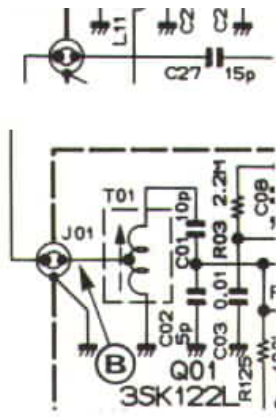
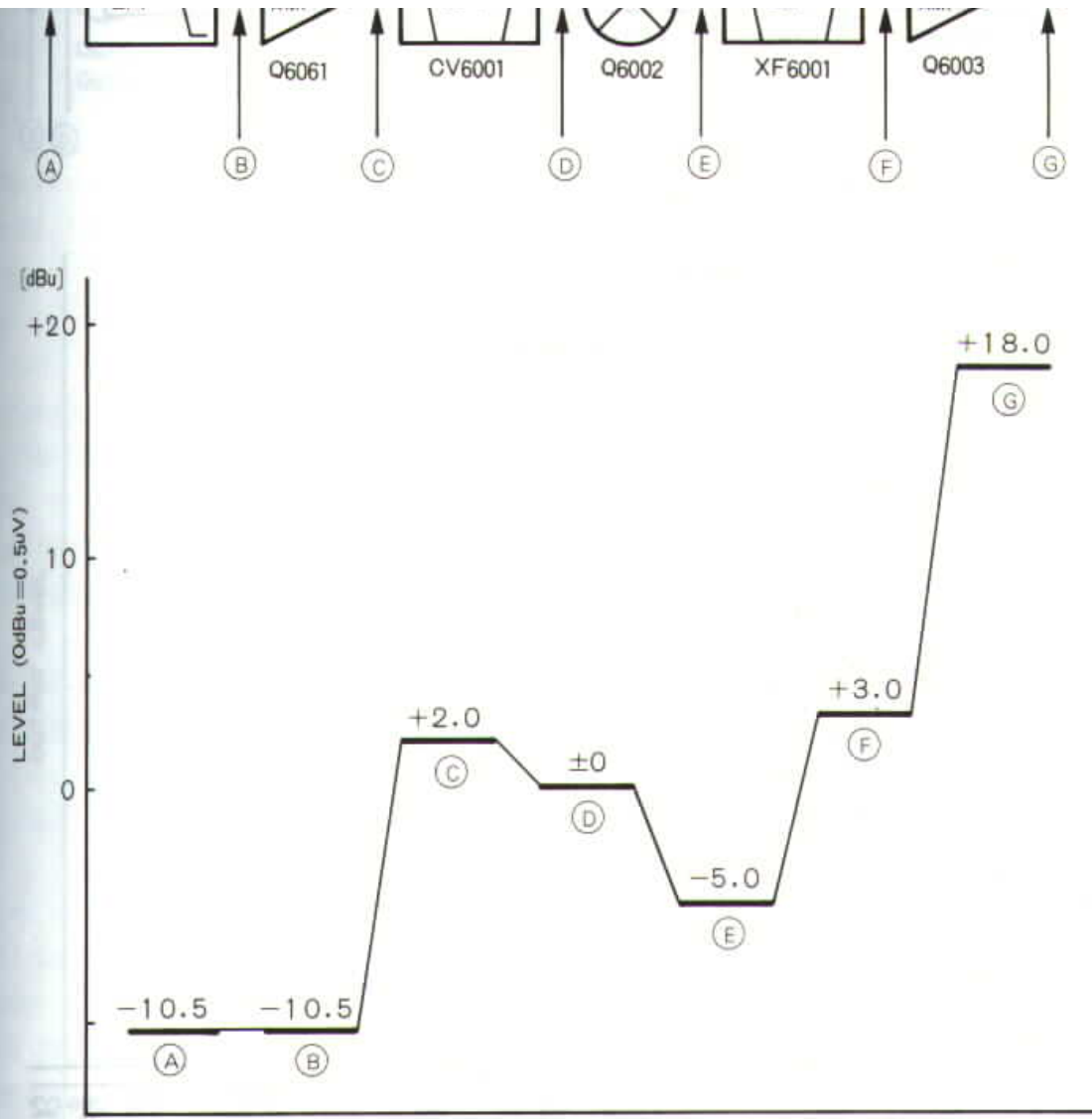


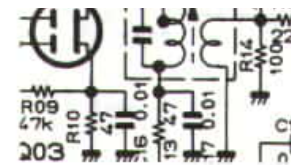
(144MHz RX) LEVEL DIAGRAM



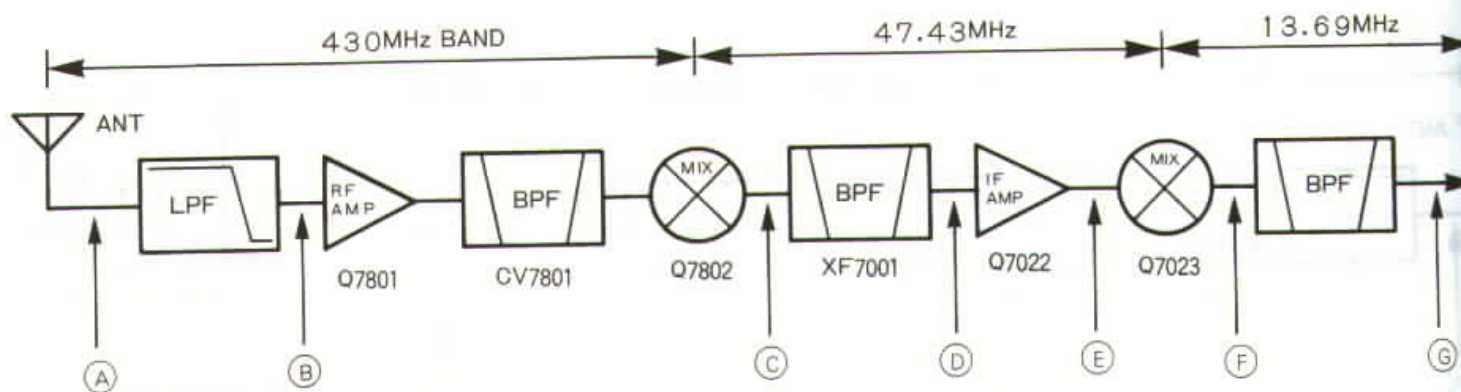
TV
TX

PRE
STBY
AGC
TX IF
GND
RX IF
GND
KEY
ALC
3.3V
GND





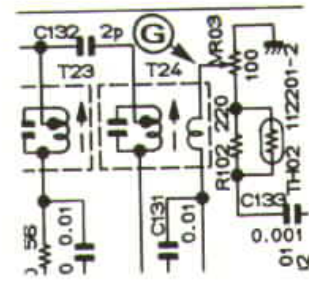
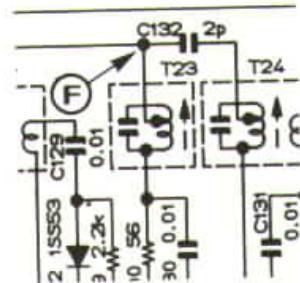
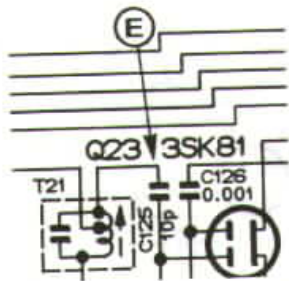
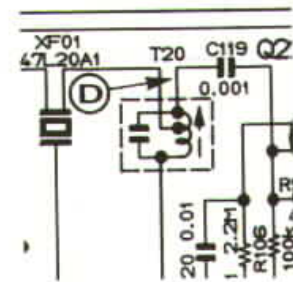
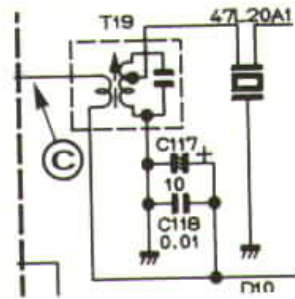
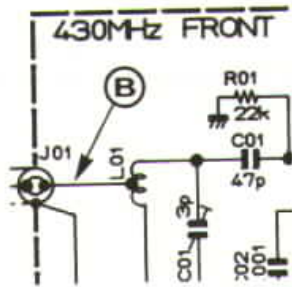
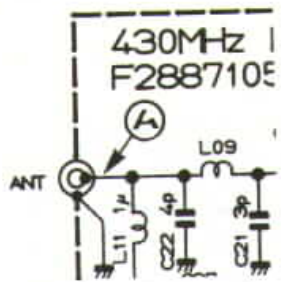
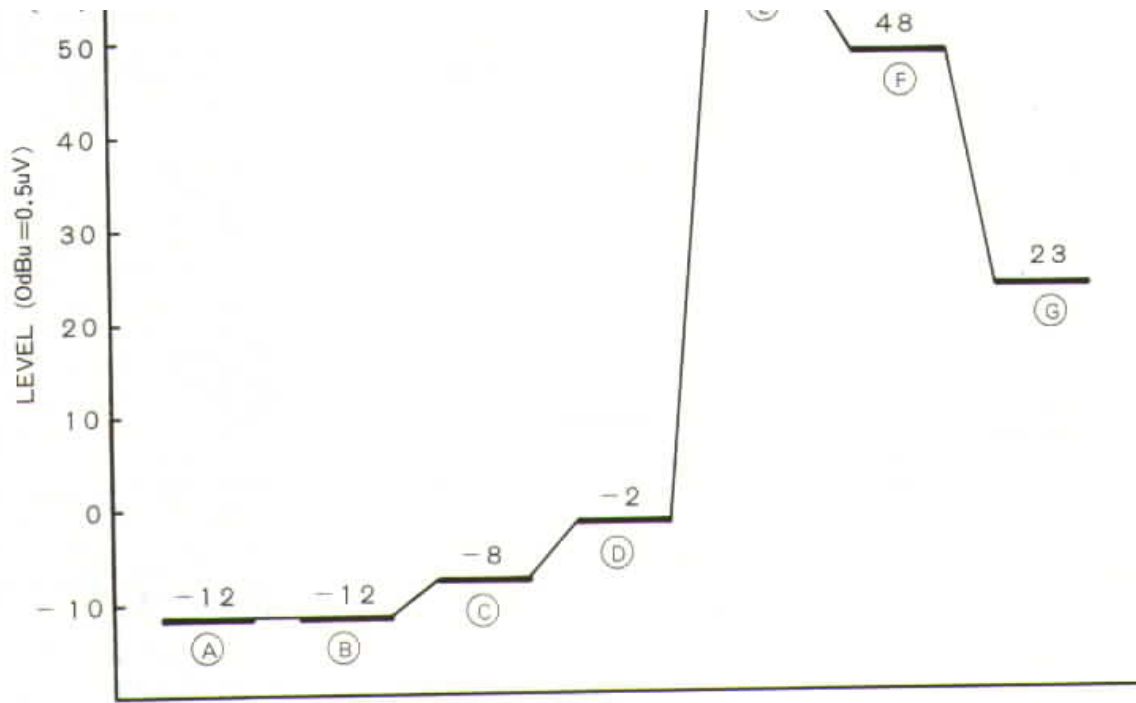
LEVEL DIAGRAM (430MHz RX)



(dBu)

56

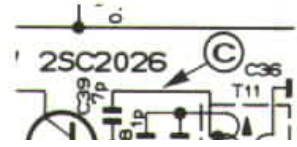
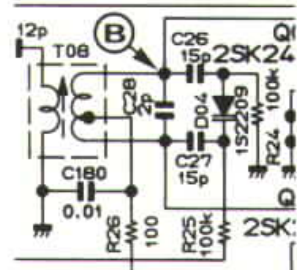
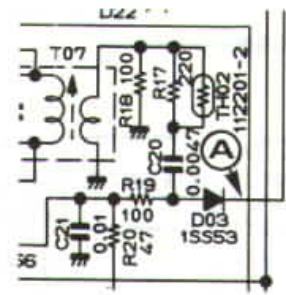
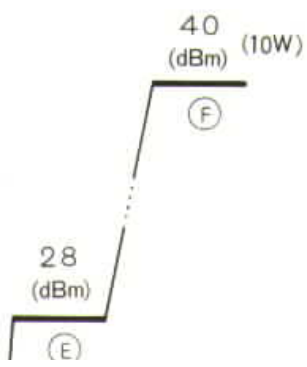
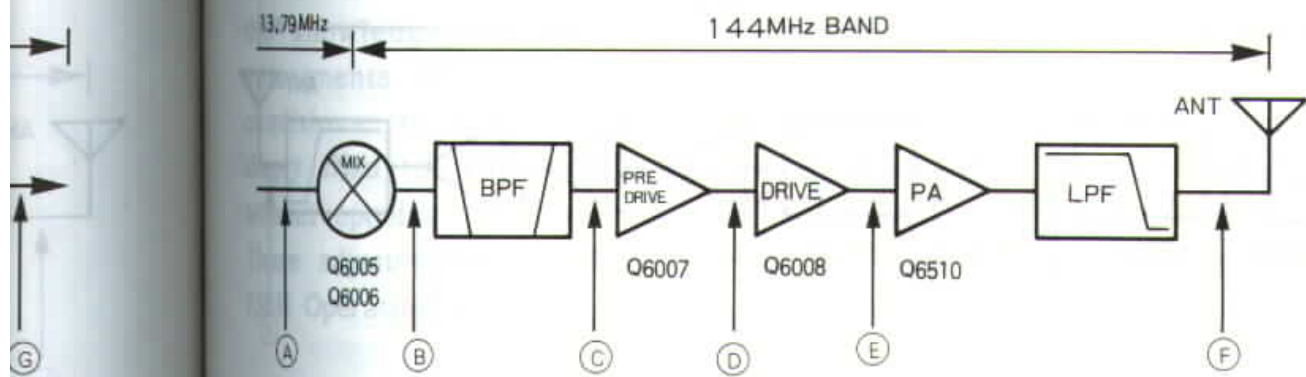
(F)

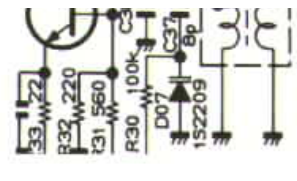
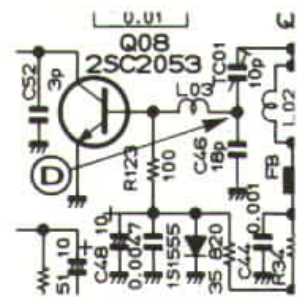
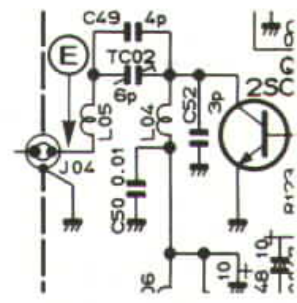
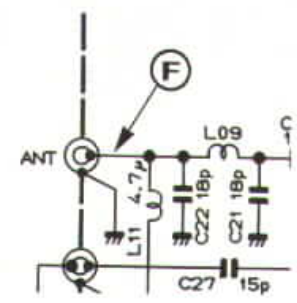
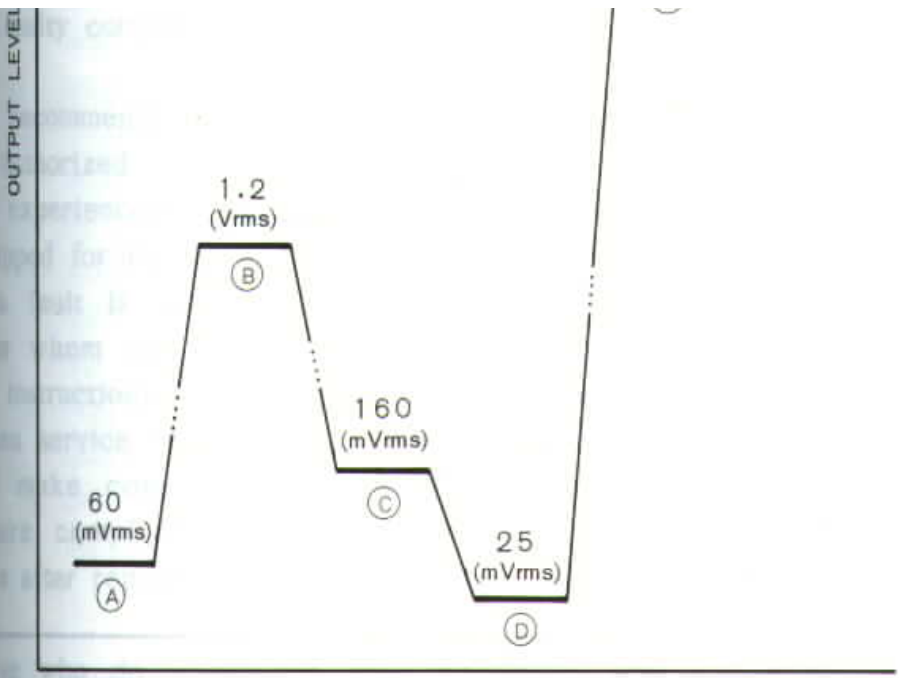


RF-FAST (continued)

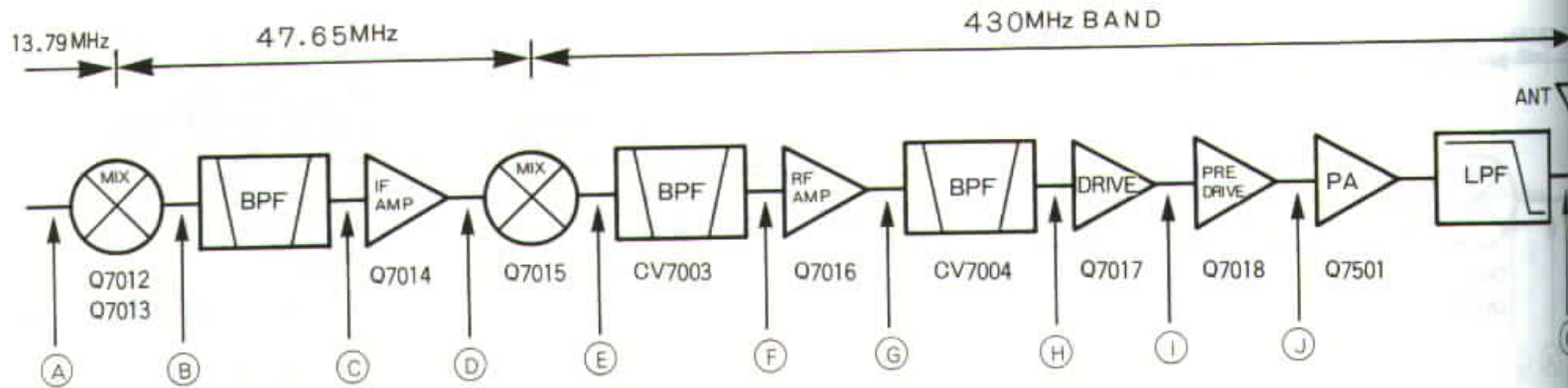
OUTPUT LEVEL

(144MHz TX) LEVEL DIAGRAM





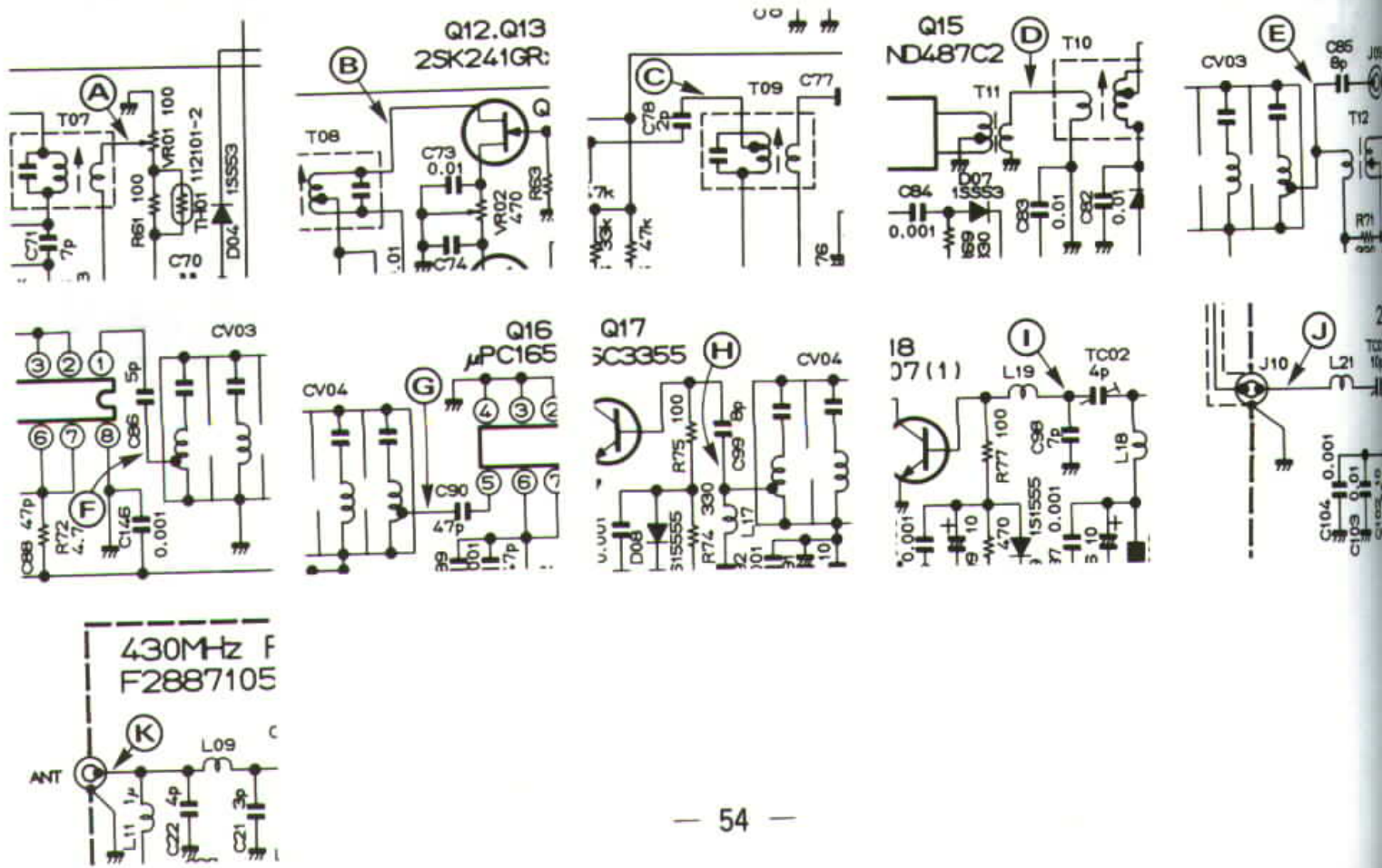
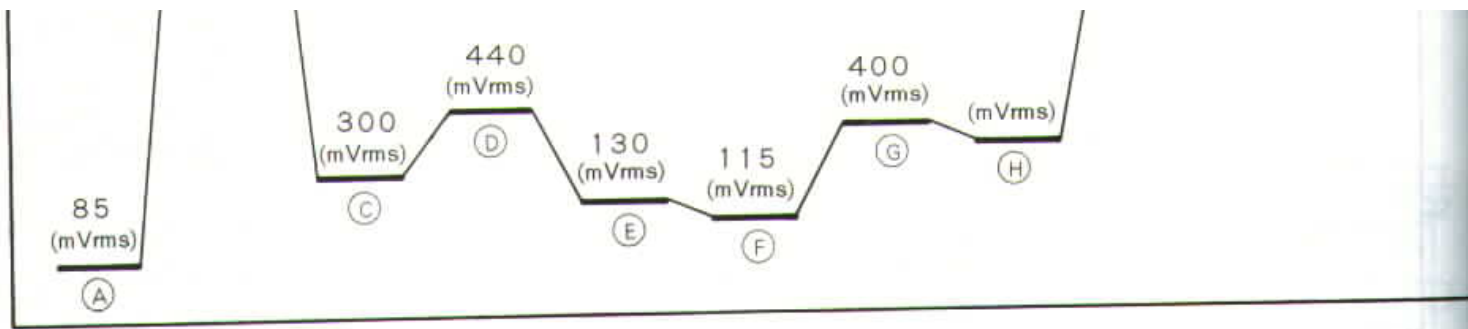
LEVEL DIAGRAM (430MHz TX)



The FT-7...
the know...
adjustme...
conditions...
simply fro...
without op...
These adj...
736R Oper...

The follo...
times cri...
are not ne...
ver has le...
occurs a...
replaced...
sudden pro...
tion, it is...
realignme...
the faulty...

We recom...
by authori...
are experi...
equipped f...
if a fault...
from who...

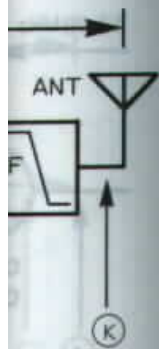


from who
for instruc
Yaesu ser
and make
ensure co
tions after

Those who
cautioned
Problems
at realig
warranty
the right
procedure
performanc

Under no
attempted
operation
understood
has been

ALIGNMENT



0
3m) (10W)
K

The FT-736R is carefully designed to allow the knowledgeable operator to make all adjustments required for various station conditions, modes and operator preferences simply from the controls on the front panel, without opening the case of the transceiver. These adjustments are described in the FT-736R Operating Manual:

The following procedures cover the sometimes critical and tedious adjustments that are not normally required once the transceiver has left the factory. However, if damage occurs and some parts subsequently be replaced, realignment may be required. If a sudden problem occurs during normal operation, it is likely due to component failure; realignment should not be done until after the faulty component has been replaced.

We recommend servicing be performed only by authorized Yaesu service technicians who are experienced with the circuitry and fully equipped for repair and alignment. Therefore, if a fault is suspected, contact the dealer from whom the transceiver was purchased for instructions regarding repair. Authorized Yaesu service technicians realign all circuits and make complete performance checks to ensure compliance with factory specifications after replacing any faulty components.

components replaced, and the need for realignment determined to be absolutely necessary.

The following test equipment (and thorough familiarity with its correct use) is necessary for complete realignment. Correction of problems caused by misalignment resulting from use of improper test equipment is not covered under the warranty policy. While most steps do not require all equipment listed, interactions of some adjustments may require complex adjustments be performed afterwards. Do not attempt to perform only a single step unless it is clearly isolated electrically from all other steps. Rather, have all test equipment ready before beginning, and follow all of the steps in a section in the order they are presented.

A 50-ohm dummy load must be connected to the antenna jack in steps calling for transmission (pressing the MOX button). Correct alignment is not possible with an antenna.

The SHIFT control must be set to the 12 o'clock position, the NOTCH control set fully counterclockwise to OFF, the RF gain control fully clockwise (maximum), and the SQL control must be fully counterclockwise, unless stated otherwise.



Those who do undertake any alignment are cautioned to proceed at their own risk. Problems caused by unauthorized attempts at realignment are not covered by the warranty policy. Also, Yaesu must reserve the right to change circuits and alignment procedures in the interest of improved performance, without notifying owners.

Under no circumstances should alignment be attempted unless the normal function and operation of the transceiver are clearly understood, the cause of the malfunction has been clearly pinpointed and any faulty

After completing one step, read the following step to determine whether the same test equipment will be required. If not, remove the test equipment (except dummy load and wattmeter, if connected) before proceeding.

CAUTION!!!

The front panel PREAMP button must be set to OFF, and jumper plugs J5016-J5019 must be removed from the AF Unit to prevent DC voltage at the Antenna Jacks (which could damage the test equipment).

ALIGNMENT

Alignment Precautions

Correct alignment requires that the ambient temperature be the same as that of the transceiver and test equipment, and that

In-line wattmeter accurate to 1300 MHz, to top edge of highest frequency band installed

50-ohm dummy load, non-reactive to 130

I. PLL

-for A. 144

101 81 Mai

1.

this temperature be held constant between 20 and 30 °C (68 to 86 °F). When the transceiver is brought into the shop from hot or cold air it should be allowed some time for thermal equalization before alignment.

Alignments must only be made with oscillator shields and circuit boards firmly affixed in place. Also, the test equipment must be thoroughly warmed up before beginning.

Alignment values assume an internal DC bus voltage of 13.5V DC.

Note: Signal levels in dB referred to in the alignment procedure are based on $0\text{dBu}=0.5\text{uV}$.

Test Equipment:

Spectrum analyzer covering up to 1300 MHz, or to top edge of highest frequency band installed

Tracking generator covering up to 1300 MHz, or to top edge of highest frequency band installed

RF signal generator covering up to 1300 MHz, or to top edge of highest frequency band installed, with calibrated output and modulation

MHz, or to top edge of highest frequency band installed, 30-watt capacity

FM Deviation meter and SINAD meter

Sampling coupler "T"

AF signal generator with adjustable output from 0.5 to 100mV

AF millivoltmeter

Oscilloscope with 100 MHz bandwidth

RF voltmeter ranging from 5mV to 3Vrms, with 5% accuracy to 1300 MHz, or to top edge of highest frequency band installed

Frequency counter with 0.1 ppm accuracy to 1300 MHz, or to top edge of highest frequency band installed

DC voltmeter with at least 10 Megohms impedance

— 56 —

(PLL) ALIGNMENT

0 MHz, or
ency band
e to 1300
frequency

I. PLL

A. 144 MHz PLL Sub Loop (on 144 MHz Main Unit - requires DC voltmeter)

1. Connect the DC voltmeter between TP6004 and chassis ground.
2. Tune the transceiver to 14x.01999 MHz, CW mode, and adjust L6019 for 4.2V on the voltmeter.
3. Retune the transceiver to 14x.02000 MHz and confirm at least 0.6V on

C. 144 MHz PLL Main Loop (on 144 MHz Main Unit - requires DC voltmeter)

1. Connect the DC voltmeter between TP6001 and chassis ground.
2. Tune the transceiver to the low band edge, CW mode, and adjust L6009 for 2.0V on the voltmeter.
3. Retune the transceiver to the high band edge and confirm $3.0 \pm 0.5V$ (or $2.0 \pm 0.5V$ in versions B1, C1 and H1) on the voltmeter.

able output

ith

- the voltmeter.
4. Disconnect the voltmeter.
- B. 144 MHz PLL VCXO (on 144 MHz Main Unit - requires oscilloscope and DC voltmeter)
1. Connect the oscilloscope to TP6002 and the voltmeter between TP6003 and chassis ground.
 2. Tune the transceiver to 14x.01999 MHz, CW mode, and adjust L6023 for 5.0V on the voltmeter.
 3. Retune the transceiver to 14x.02000 MHz and confirm at least 1.0V on the voltmeter.
 4. Adjust T6013-T6016 for maximum amplitude on the 'scope.
 5. Disconnect the 'scope and voltmeter.

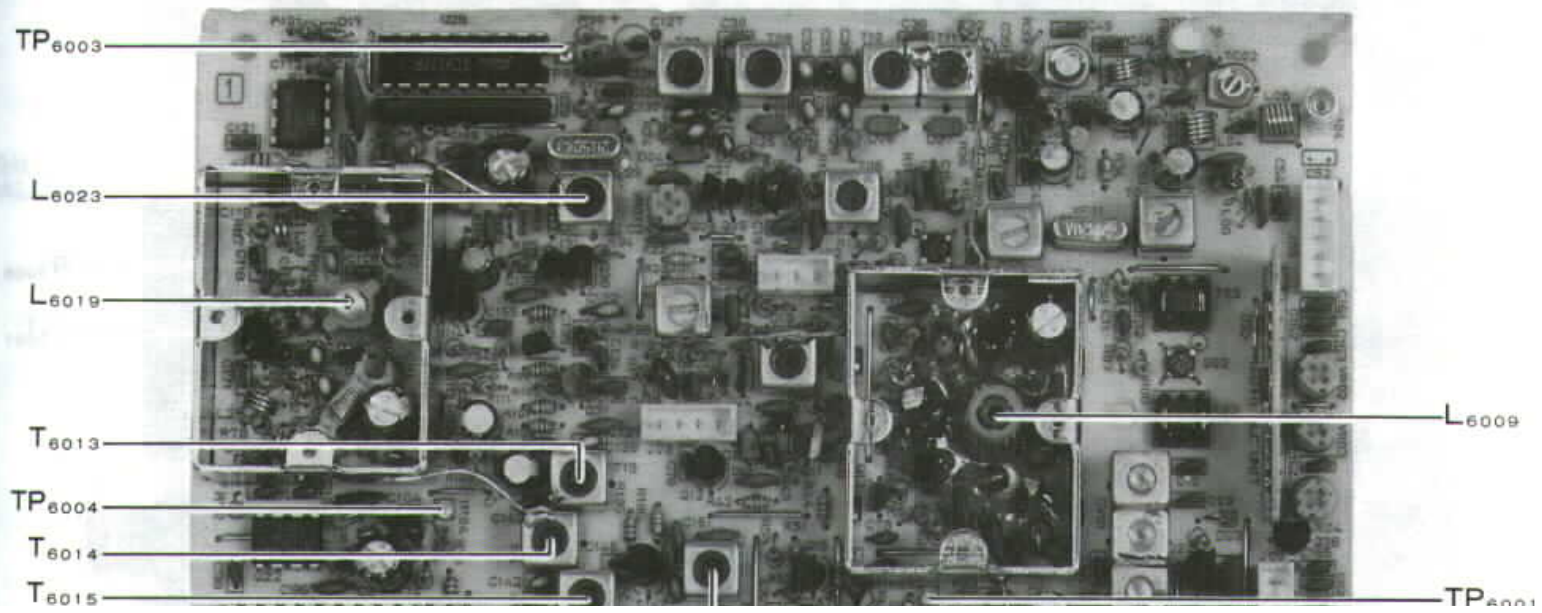
4. Disconnect the voltmeter.

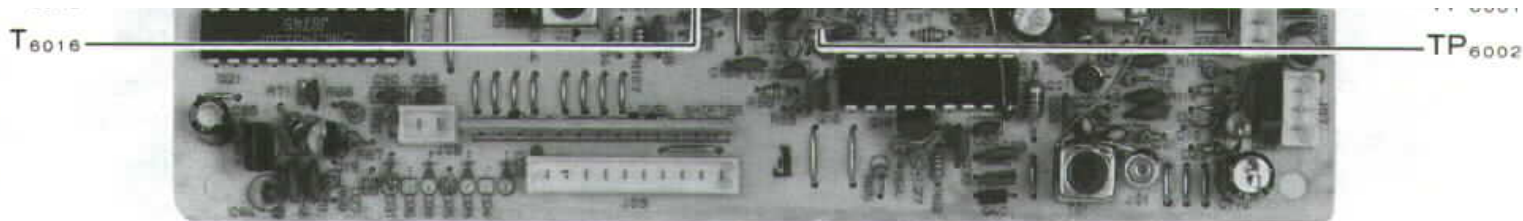
D. Transmitter PLL (on TX Unit, requires DC voltmeter)

1. Connect the voltmeter between the exposed lead of R4001 and chassis ground.
2. Adjust T4001 for 4.0V on the voltmeter.
3. Remove the voltmeter.

E. Receiver PLL (on RX Unit, requires DC voltmeter)

1. Connect the voltmeter between the exposed lead of R3005 and chassis ground.
2. Adjust T3001 for 4.0V on the voltmeter.
3. Remove the voltmeter.





144MHz MAIN UNIT ALIGNMENT POINTS

ALIGNMENT (PLL)

F. 430 MHz PLL Sub Loop (on 430 MHz PLL Unit - requires DC voltmeter)

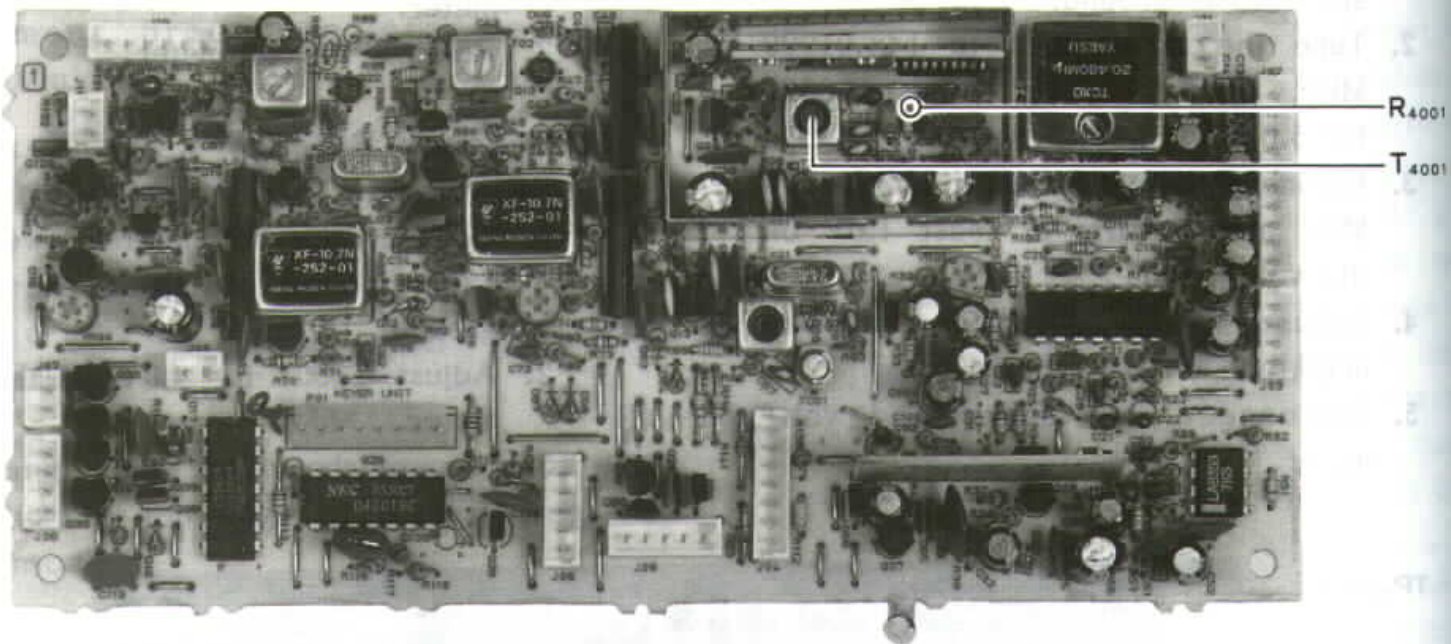
1. Connect the DC voltmeter between TP8001 and chassis ground.
2. Tune the transceiver to 4xx.01999 MHz, CW mode, and adjust L8004 for 4.2V on the voltmeter.
3. Retune the transceiver to 4xx.02000 MHz and confirm at least 0.6V on the voltmeter.
4. Disconnect the voltmeter.

G. 430 MHz PLL VCXO (on 430 MHz PLL Unit - requires RF voltmeter and DC voltmeter)

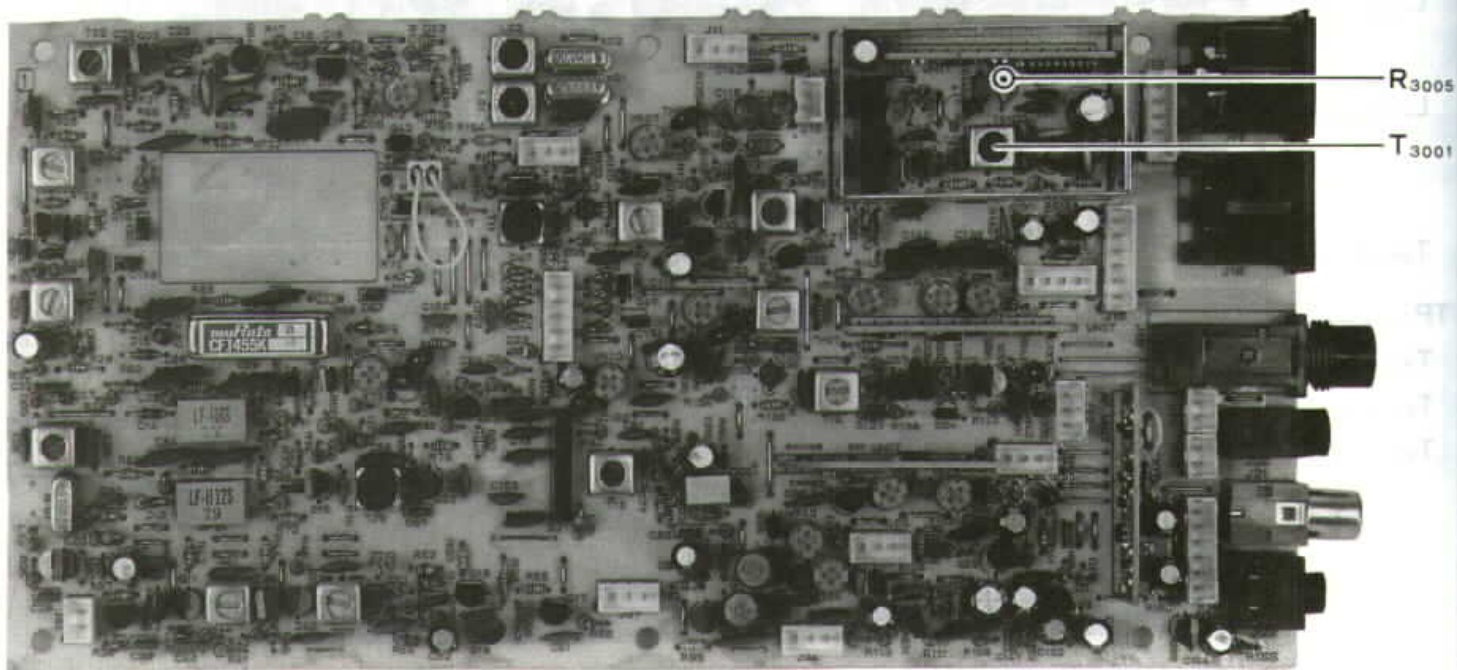
1. Connect the RF voltmeter to the exposed lead of R8015, and the DC voltmeter between the exposed lead

2. Tune the transceiver to 4xx.01999 MHz, CW mode.
3. Adjust T8001 for maximum RF voltage, and then adjust L8016 for 6.5V on the DC voltmeter.
4. Retune the transceiver to 4xx.02000 MHz and confirm at least 1.0V on the DC voltmeter.
5. Retune the transceiver to the center of the band, FM mode, and move the RF voltmeter to J8001.
6. Adjust T8002 and CV8001 for maximum on the RF voltmeter.
7. Disconnect the voltmeters.

multimeter between the exposed pads
of R8017 and chassis ground.



TX UNIT ALIGNMENT POINTS



RX UNIT ALIGNMENT POINTS

(PLL) ALIGNMENT

H. 430 MHz 2nd Local (on 430 MHz Local and RF Units - requires RF and DC voltmeters)

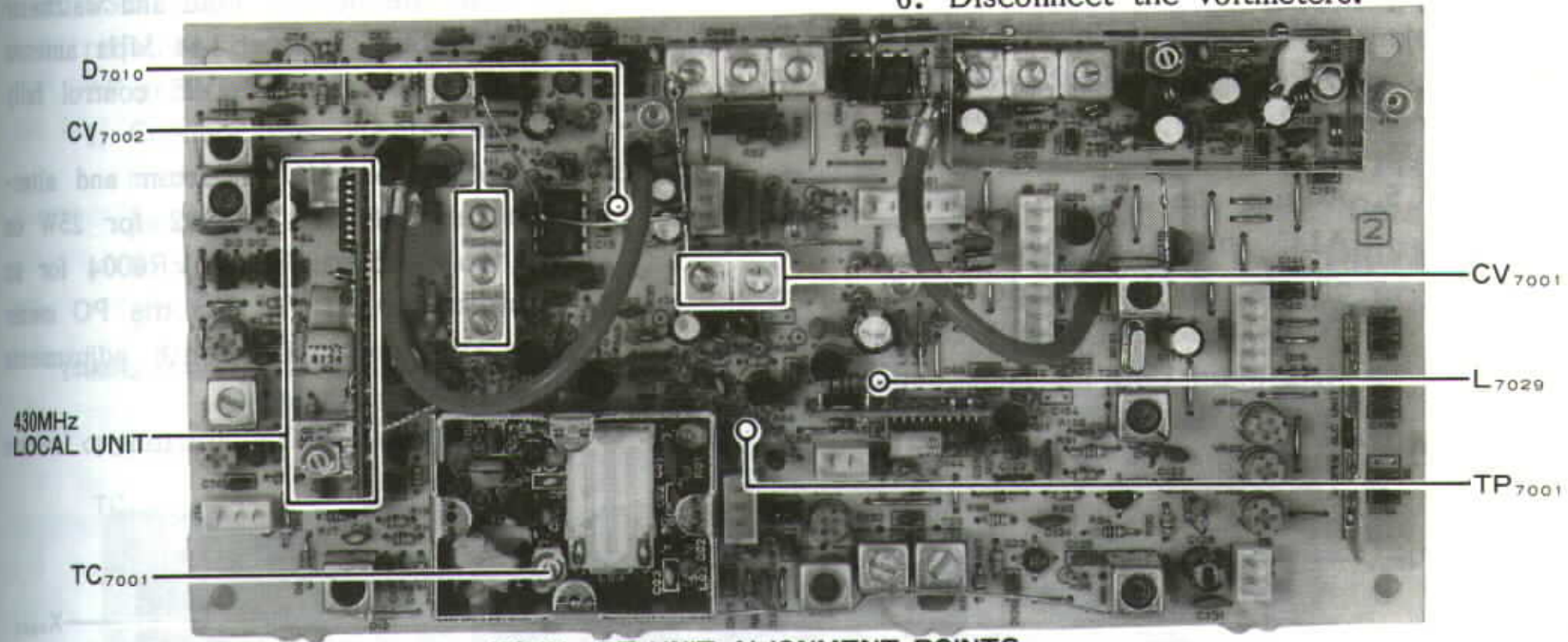
1. Connect the DC voltmeter between the exposed lead of R7712 on the 430 MHz Local Unit and chassis ground. Connect the RF voltmeter to the exposed lead of L7029 on the 430 MHz RF Unit.
2. Set the transceiver to the center of the 70cm band, FM mode.
3. Adjust TC7701 on the 430 MHz Local Unit for 5.0V on the DC voltmeter.
4. Adjust CV7001 on the 430 MHz RF Unit for maximum on the RF voltmeter.
5. Disconnect the voltmeters.



I. 430 MHz PLL Main Loop (on 430 MHz RF Unit - requires RF and DC voltmeters)

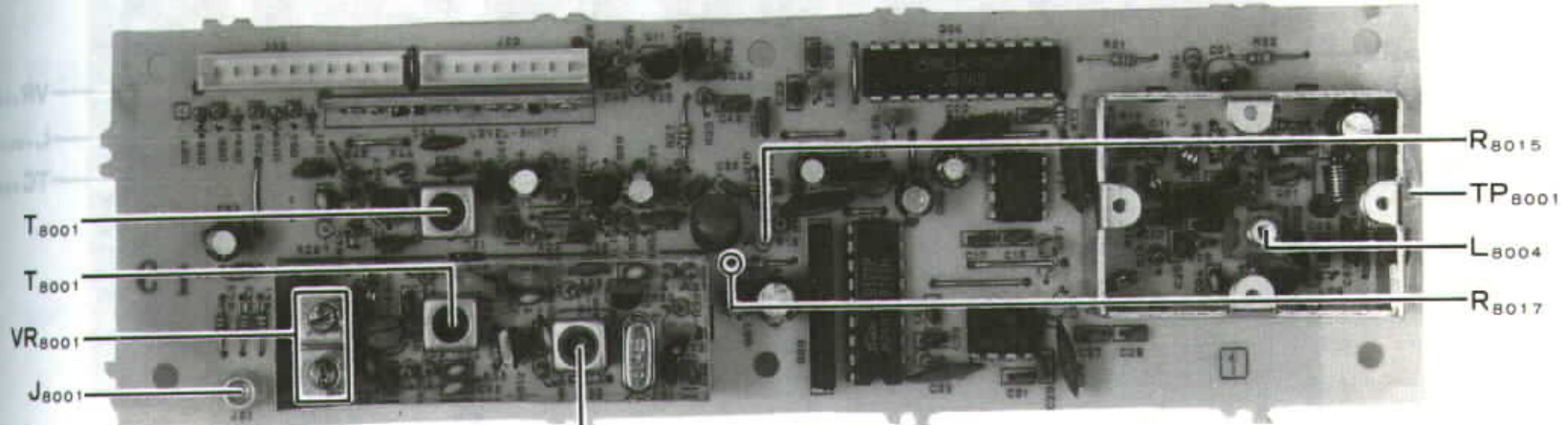
1. Connect the DC voltmeter between TP7001 and chassis ground. Connect the RF voltmeter to the cathode of D7010.
2. Tune the transceiver to the high edge of the 70cm band, CW mode, and adjust TC7001 for 4.0V (7.5V for versions A1 and A2) on the DC voltmeter.
3. Retune the transceiver to the low band edge and confirm at least 1.0V on the DC voltmeter.
4. Retune the transceiver to the center of the band and adjust CV7002 for peak on the RF voltmeter.
5. Retune the transceiver to the high and low band edges and confirm that the RF voltmeter reads within $\pm 1\text{dB}$ ($\pm 2\text{dB}$ for versions A1 and A2) relative to the level at the center of the band.

430MHz LOCAL UNIT ALIGNMENT POINTS



center of the band.
6. Disconnect the voltmeters.

430MHz RF UNIT ALIGNMENT POINTS



430MHz PLL UNIT ALIGNMENT POINTS

ALIGNMENT (Transmitter)

II. Transmitter

A. ALC Meter Sensitivity (on TX Unit)

1. Set the METER selector to the DISC/ALC position, and select the CW mode.
2. Tune the transceiver to the center of the 144 MHz band and adjust VR4004 so that the ALC meter just begins to deflect while receiving.

B. 144 MHz Transmitter (on TX Unit and 144 MHz Main Unit - requires dummy load, wattmeter)

1. Set the METER selector to DISC/ALC and select the FM mode.
2. Tune the transceiver to the center of the 2m band, and connect the dummy load and wattmeter to the 144 MHz antenna jack.
3. Press the MOX button and adjust the DRIVE control for 4W on the wattmeter.
4. Adjust T4002 and T4003 on the TX Unit, and T6008-T6012 on the 144 MHz Main Unit for peak on the wattmeter, reducing the DRIVE control setting if necessary to keep power output below 5W during adjustment.

5. Adjust the DRIVE control for an

C. 144 MHz AFP (Automatic Final Protection, on 144 MHz Main Unit, requires dummy load, wattmeter and DC voltmeter)

1. Set the transceiver to the FM mode, turn the DRIVE control fully clockwise, and tune to the center of the 2m band.
2. With the dummy load and wattmeter connected to the 144 MHz antenna jack, connect the DC voltmeter to the anode of D6032.
3. Press the MOX button and adjust VR6003 for 1.0V on the voltmeter.
4. Press the MOX button to return to receive, and remove the voltmeter.

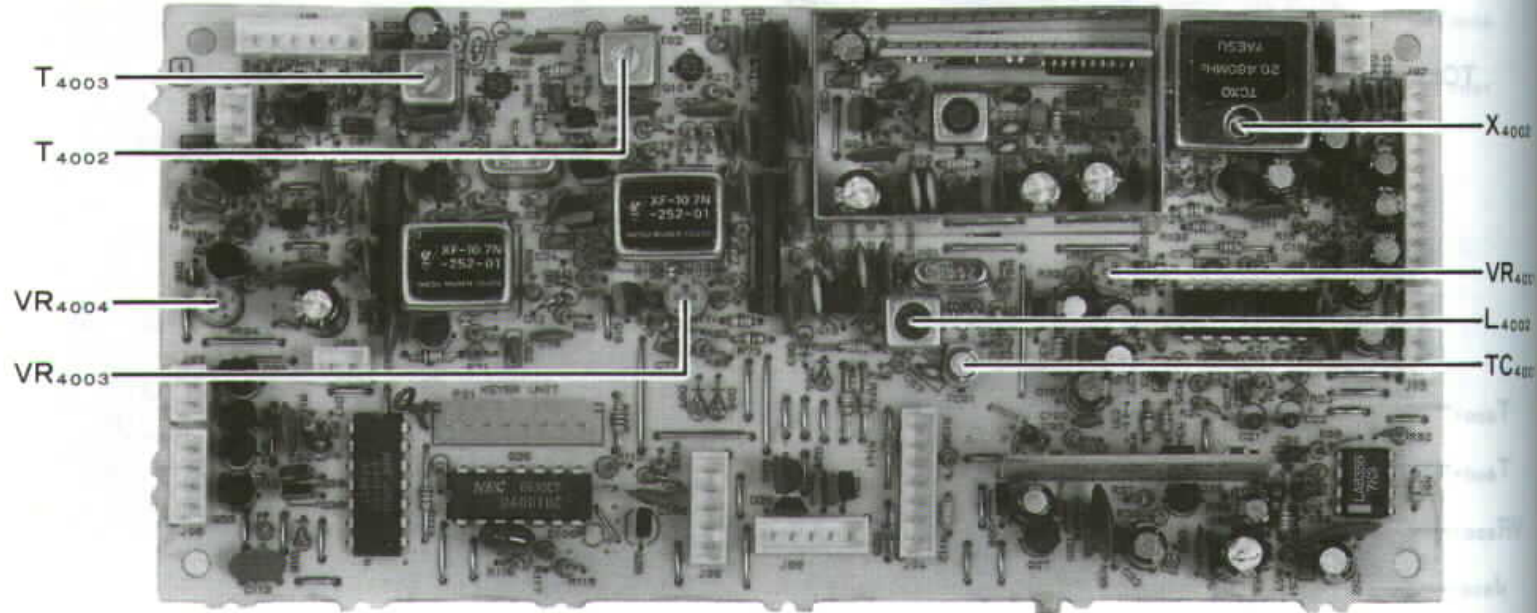
D. 144 MHz ALC level & PO Meter Sensitivity (on 144 MHz Main Unit - requires dummy load and wattmeter)

1. Set the transceiver to the center of the 2m band, FM mode, and set the METER selector to the S/PO position.
2. With the dummy load and wattmeter connected to the 144 MHz antenna jack, set the DRIVE control fully clockwise.
3. Press the MOX button and alter-

5. Adjust the DRIVE control for an ALC indication equivalent to "7" on the S-Unit scale, and adjust TC6001 and TC6002 on the 144 MHz Main Unit for peak output.
6. Press the MOX button again to return to receive.

ately adjust VR6002 for 25W on the wattmeter and VR6004 for an indication of "8" on the PO meter scale, repeating both adjustments several times.

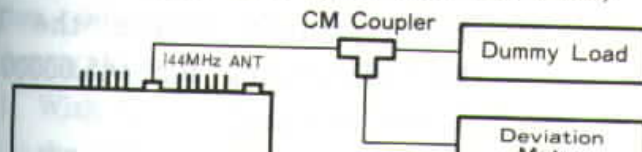
4. Press the MOX button to return to receive.



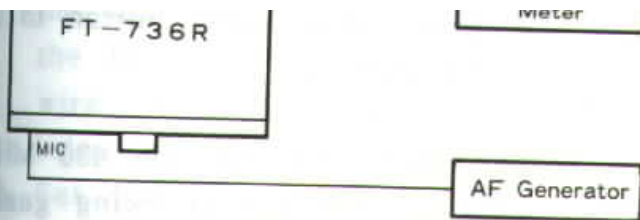
TX UNIT ALIGNMENT POINTS

(Transmitter) ALIGNMENT

E. 144 MHz FM Deviation (on TX Unit)



2. Tune the transceiver to the center of the 2m band in USB mode. Set the MIC gain control to 12 o'clock and the DRIVE control to a

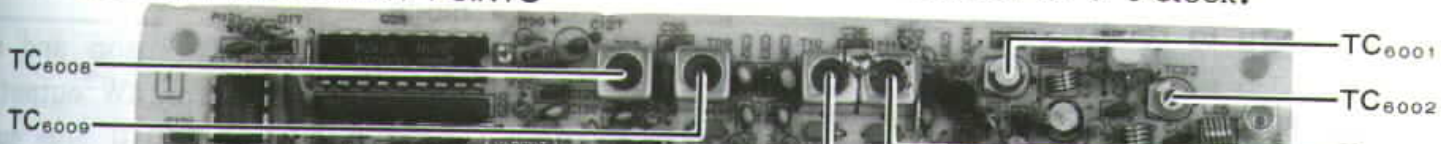


1. Connect the test equipment as shown in the diagram above.
2. In FM mode, tune the transceiver to the center of the 144 MHz band, and set the MIC Gain to 12 o'clock and DRIVE fully clockwise.
3. Set the AF generator for 15mV output at 1 kHz.
4. Press the MOX button and adjust VR4001 for ± 4.5 kHz deviation on the deviation meter.
5. Now select the FM-N mode and confirm ± 2 to ± 3 kHz deviation.
6. Press the MOX button again to return to receive.

F. SSB Carrier Point (on TX Unit- requires dummy load, wattmeter and AF generator)

1. Connect the dummy load and wattmeter to the 144 MHz antenna jack, and the AF generator to pin 8 of the MIC jack (pin 7 is ground).

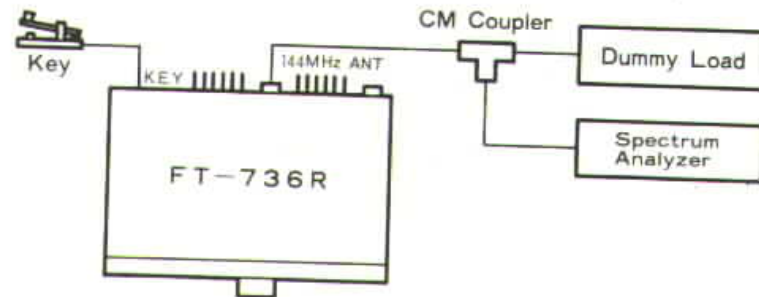
144MHz MAIN UNIT ALIGNMENT POINTS



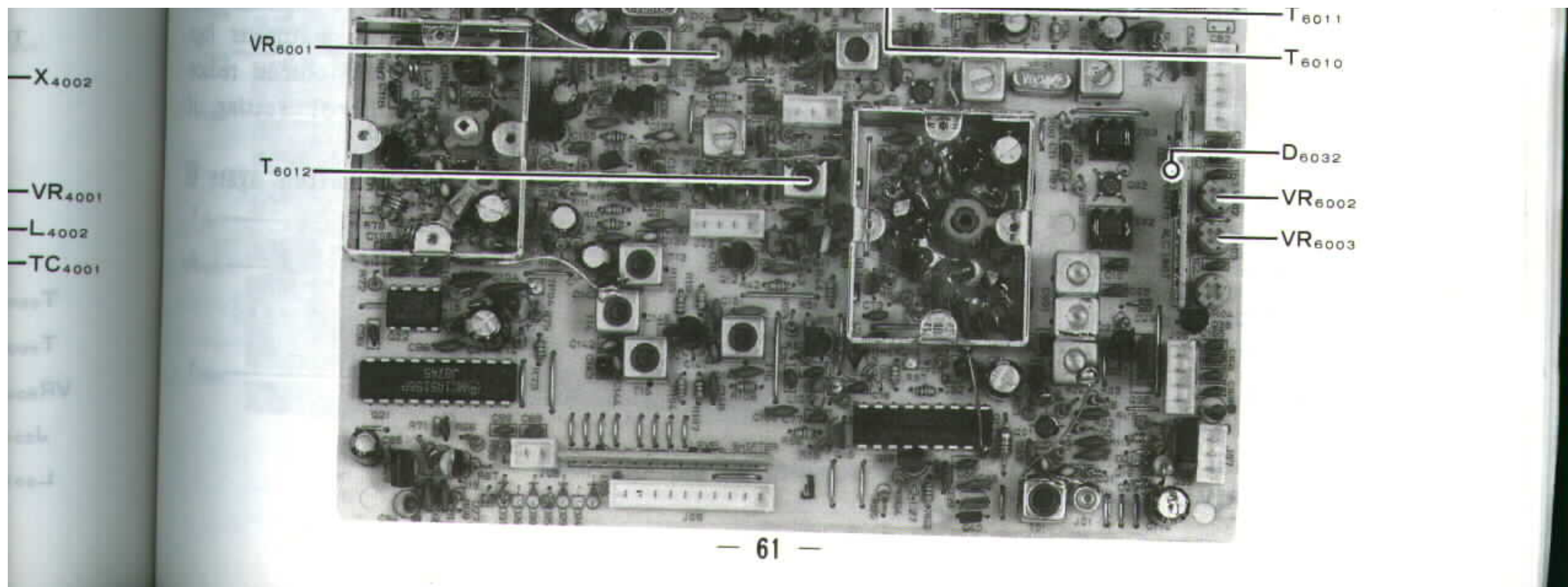
o'clock. Press the MOX button.

3. While maintaining a constant AF injection level of 1mV, tune the AF generator back and forth between 300 and 2700 Hz while adjusting L4002 so that the power output is the same at both AF injection frequencies.
4. Change to LSB mode and repeat step 3, adjusting L4001.
5. Press the MOX button to return to receive, remove the AF generator.

G. SSB Carrier Balance (on TX Unit)



1. Connect the test equipment as shown in the diagram above.
2. In CW mode, tune the transceiver to the center of the 144 MHz band. Set the MIC Gain fully counterclockwise and DRIVE fully clockwise. Also, set the VOX gain control to 9 o'clock.



ALIGNMENT (Transmitter)

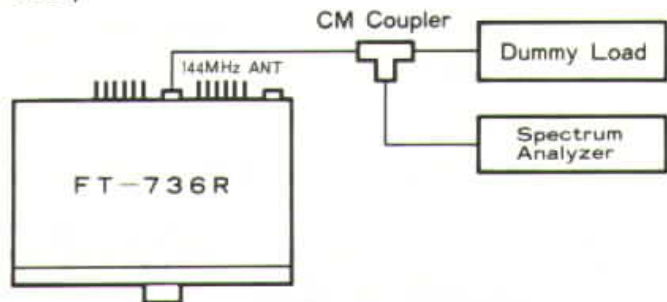
3. Close the key and note the carrier level on the analyzer. Then change to the USB mode.
4. Press the MOX button and adjust VR4003 for minimum carrier level (less than 40dB below the CW carrier level noted in step 3).
5. Change to LSB mode and confirm at least 40dB carrier suppression while transmitting.
6. Press the MOX button to return

3. Press the MOX button and adjust the trimmer inside the TCXO (X4002) housing for 145.00000 MHz on the counter.
4. Press the MOX button to return to receive.

- J. 430 MHz TX RF (on 430 MHz RF Unit - requires tracking generator and spectrum analyzer)
 1. Connect the tracking generator to

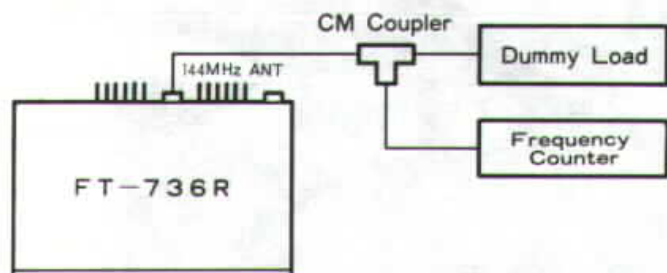
to receive.

H. 144 MHz TX Mixer (on 144 MHz Main Unit)



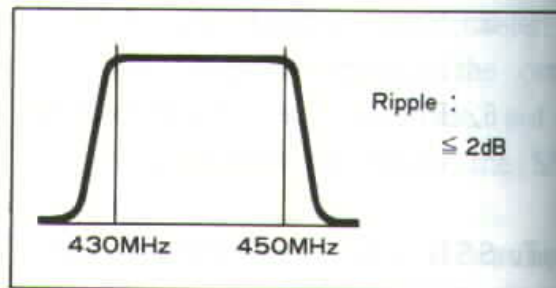
1. Connect the test equipment as shown in the diagram above.
2. In FM mode, tune the transceiver to the center of the 144 MHz band. Set the MIC Gain fully counterclockwise and DRIVE fully clockwise.
3. Press the MOX button and adjust VR6001 so that the spuri at 13.79 MHz on either side of the carrier are at least 65dB down.
4. Press the MOX button again to return to receive.

I. TX Frequency Calibration (on TX Unit)



J7009 on the 430 MHz Main Unit, and couple the spectrum analyzer to the 430 MHz antenna jack.

2. Set the tracking generator output to -30dBm and adjust CV7003, CV7004, TC7002 and TC7003 for the passband shown (reducing injection level, if necessary, to avoid saturation).



K. 430 MHz TX IF, Part I (on 430 MHz RF Unit - requires dummy load and wattmeter)

1. With the dummy load and wattmeter connected to the 430 MHz antenna jack, tune the transceiver to the center of the 70cm band, FM mode.
2. Press the MOX button and set the DRIVE control for 4W output.
3. Adjust T7006-T7010 for maximum deflection on the wattmeter (but do not exceed 5W output; reduce the DRIVE control setting, if necessary).
4. Press the MOX button again to return to receive.

CV7003

T7010

T7009

T7008

J7009

VR7002

T7007

1. Connect the test equipment as shown in the diagram above.
2. In FM mode, tune the transceiver to 145.00000 MHz. Set the MIC gain fully counterclockwise and DRIVE fully clockwise.

— 62 —

VR₇₀₀₁

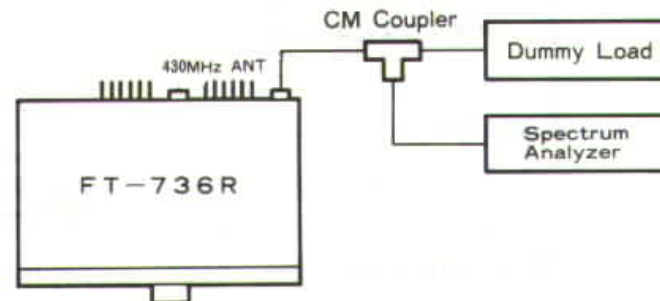
T₇₀₀₅

(Transmitter) ALIGNMENT

- L. 430 MHz AFP (Automatic Final Protection, on 430 MHz RF Unit -requires dummy load and DC voltmeter)
1. With the dummy load connected to the 430 MHz antenna jack, connect the DC voltmeter to the jumper wire (marked "A" in the drawing below) on the 430 MHz RF Unit.
 2. Set the transceiver to FM, band center. Set the DRIVE control fully clockwise, and set the METER selector to S/PO. Press the MOX button.
 3. Adjust VR7005 for 1.0V on the DC voltmeter.
 4. Press the MOX button again to return to receive, and remove the

3. Repeat the adjustments in step 2 several times, and then press the MOX button again to return to receive.

N. 430 MHz TX Mixer (on 430 RF Unit)



1. Connect the test equipment as shown in the diagram above.
2. Tune the transceiver to the center of the 70cm band, FM mode. Set the MIC gain fully counterclockwise

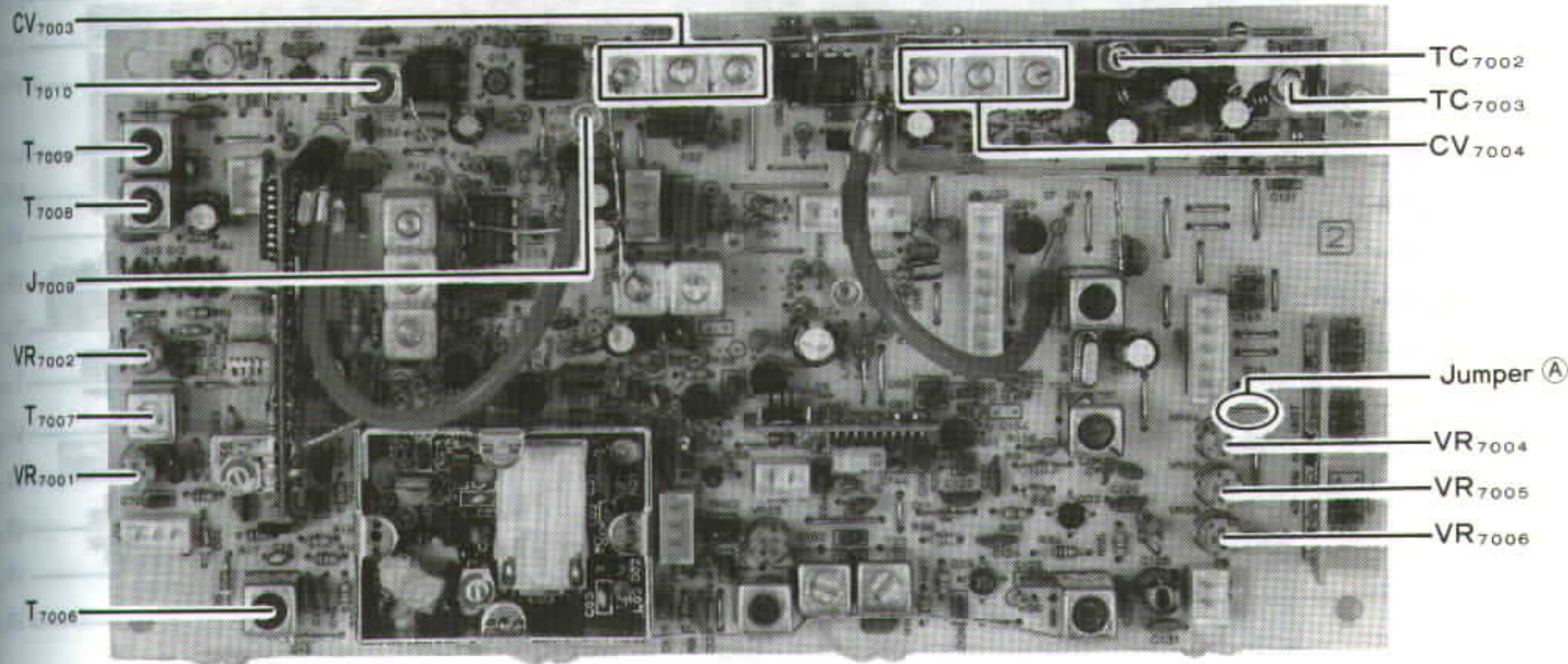
voltmeter.

M. 430 MHz ALC and PO Meter Sensitivity (on 430 MHz RF Unit -requires dummy load and wattmeter)

1. With the dummy load connected to the 430 MHz antenna jack, set the transceiver to FM, band center. Set the DRIVE control fully clockwise, and set the METER selector to S/PO.
2. Press the MOX button and alternately adjust VR7004 for 25W output and VR7006 so the transceiver meter deflects to "8" on the PO scale.

and DRIVE fully clockwise.

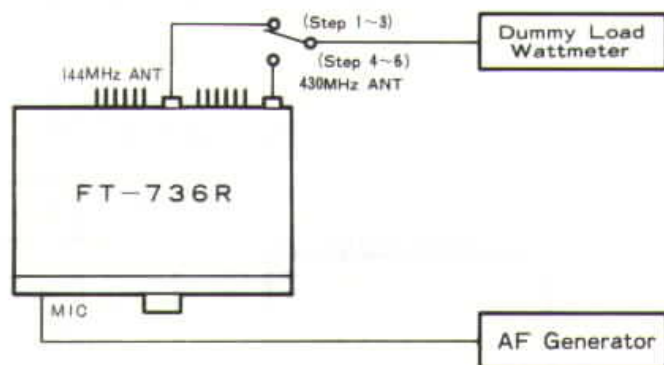
3. Press the MOX button and adjust VR7002 so that the spuri at 13.79 MHz on either side of the carrier are at least 65dB down.
4. Press the MOX button again to return to receive.



430MHz RF UNIT ALIGNMENT POINTS

ALIGNMENT (Transmitter Receiver)

O. 430 MHz TX IF, Part II (on 430 MHz RF Unit)



1. Connect the test equipment as shown above, with the AF generator set for 3mV @ 1 kHz.
2. Set the transceiver to USB, at the center of the 144 MHz band.
3. Set the DRIVE control fully clockwise, press the MOX button to transmit, and adjust the MIC gain for 5W output. Press the MOX button again to return to receive.
4. Retune the transceiver, now to the center of the 430 MHz band.
5. Press the MOX button and adjust

III. Receiver

A. IF Shift (on RX Unit - requires frequency counter)

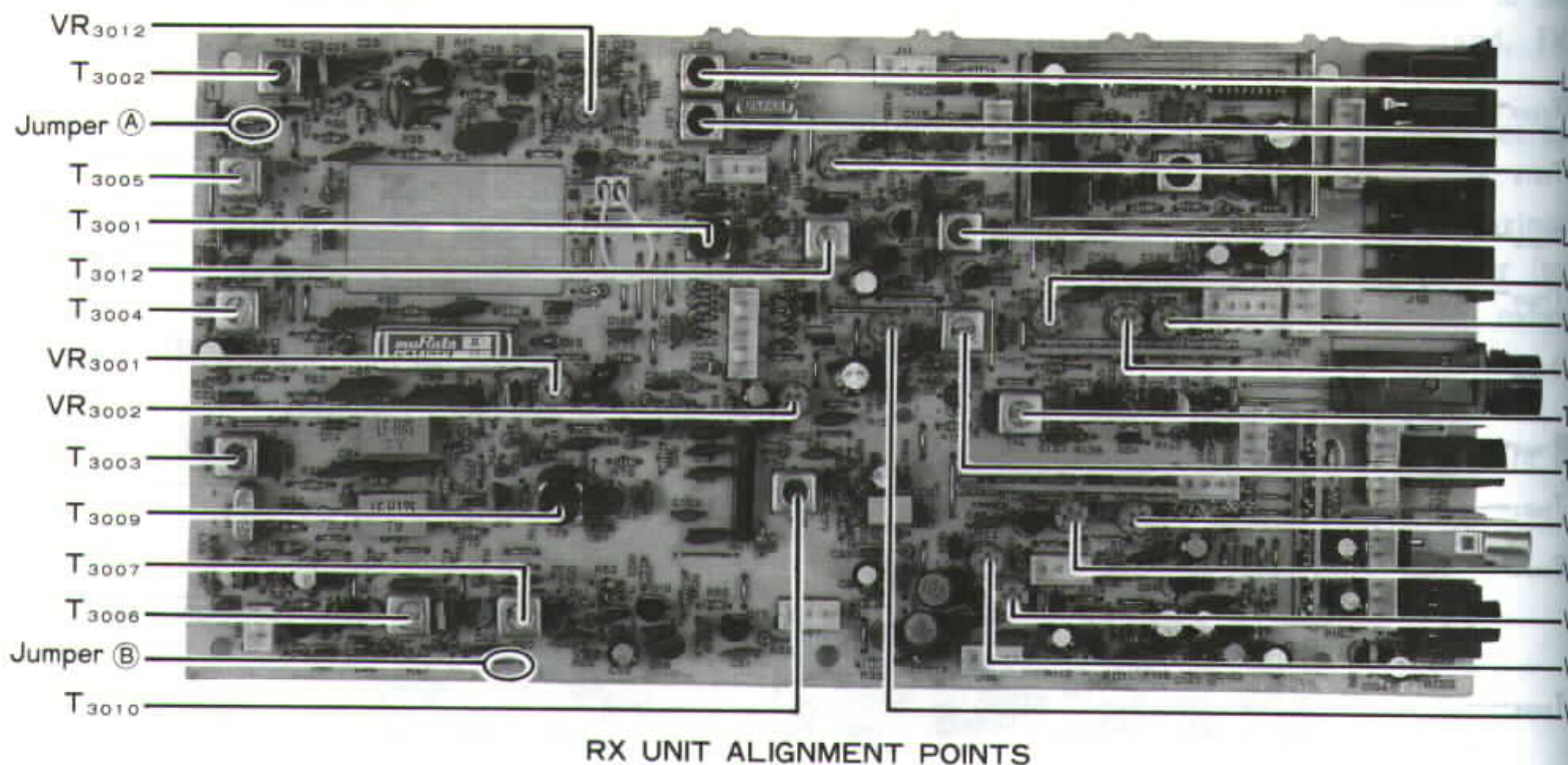
1. Connect the counter to jumper "A" in the diagram below.
2. Tune the transceiver to the center of the 430 MHz band, USB mode, and set the SHIFT control to 12 o'clock.
3. Adjust L3001 for 13.2335 MHz ± 50 Hz on the counter.
4. Confirm at least ± 1 kHz shift on the counter when the SHIFT control is set to its extremes.
5. Center the SHIFT control and select the LSB mode.
6. Adjust L3002 for 13.2365 MHz ± 50 Hz on the counter.
7. Repeat step 4.
8. Center the SHIFT control and select the CW mode.
9. Adjust VR3012 for 13.2350 MHz ± 50 Hz on the counter. In CW mode

VR7001 for 5W output.

6. Press the MOX button to return to receive, and disconnect the test equipment.

the counter frequency should not change when the SHIFT control is turned.

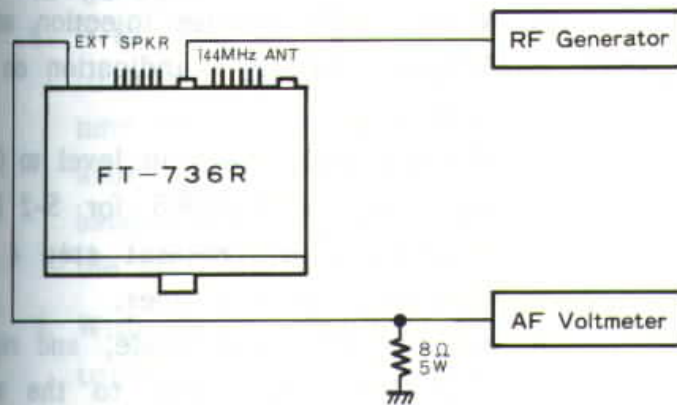
10. Disconnect the counter.



(Receiver) ALIGNMENT

B. 144 MHz RX (on RX Unit and 144 MHz Main Unit)

1. Connect the test equipment as shown here.



2. Set the transceiver to FM mode, the METER selector to S/PO, AF gain to 10 o'clock and RF gain fully clockwise.
3. Tune the transceiver and RF generator to the center of the 2m band. Inject a 1 kHz tone with ± 7 kHz deviation at a level sufficient to produce an S-7 reading on the S-meter.
4. Adjust T6001, CV6001 and T6004-T6006 on the 144 MHz RX Unit, and T3002-T3005 and T3009 on the RX Unit for peak S-meter deflection.
5. Adjust T3010 on the RX Unit for maximum deflection on the AF

7. Change to mode to USB and turn off the RF generator's injection modulation.
8. Tune the transceiver for a 1.5 kHz heterodyne on the injected carrier, and adjust the injection level for S-7 on the S-meter.
9. Adjust T3011-T3014 on the RX Unit for maximum deflection on the AF voltmeter, reducing the injection level if necessary to maintain an S-7 indication on the S-meter.
10. Remove the test equipment.

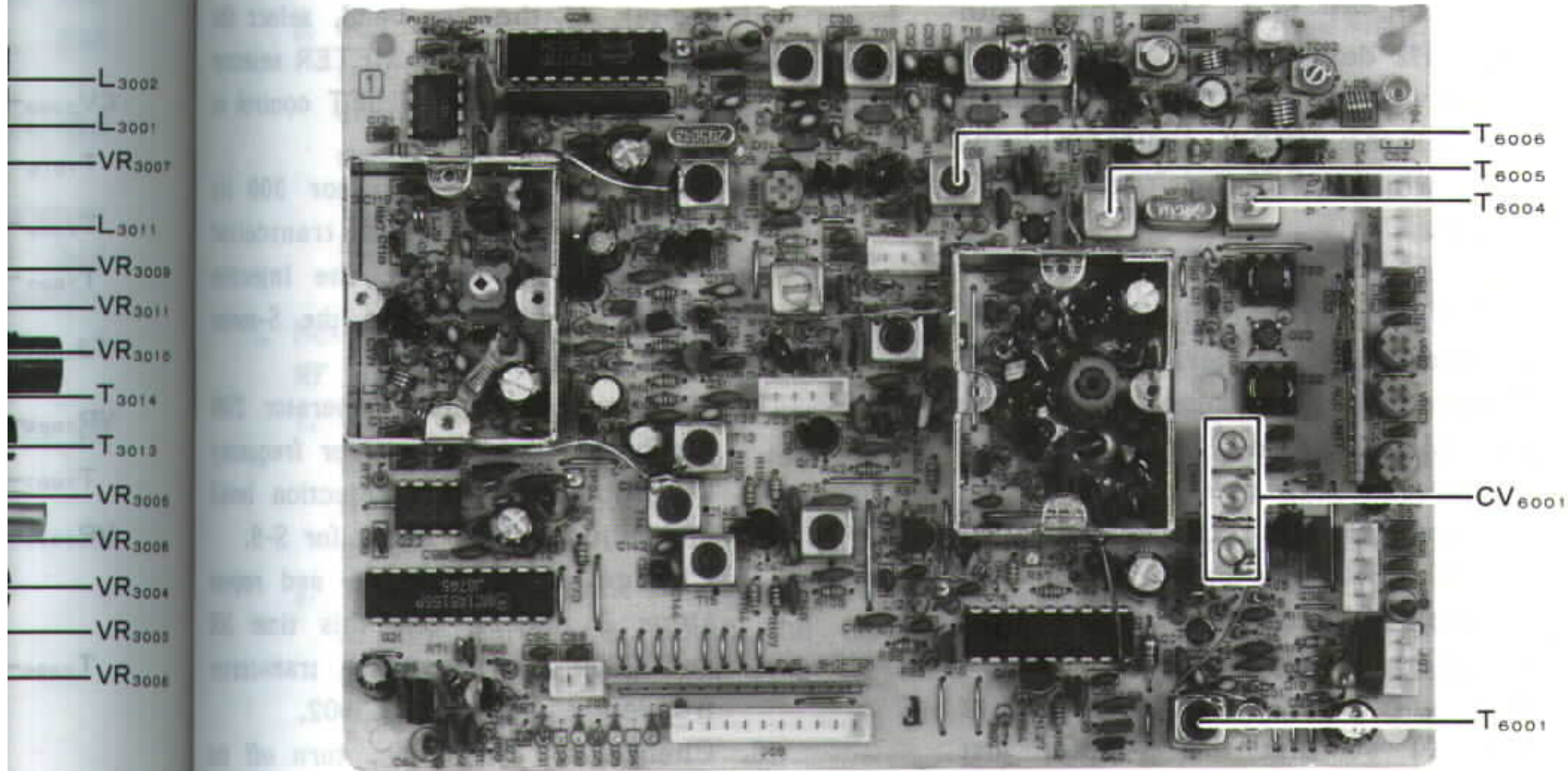
C. Noise Squelch (RX Unit - requires RF generator)

1. With the RF generator connected to the 144 MHz antenna jack and switched off, set the transceiver to FM, and set the SQL and RF gain controls fully clockwise.
2. Tune the transceiver to the center of the 2m band and turn the SQL control counterclockwise just until the squelch opens, which should be around 9 o'clock.
3. Set the SQL control to 9 o'clock and adjust VR3003, if necessary, to the point just before the squelch

voltmeter.

opens with no RF injection.

6. Repeat steps 4 and 5 several times.



144MHz MAIN UNIT ALIGNMENT POINTS

ALIGNMENT (Receiver)

4. Set the RF generator for ± 3.5 kHz deviation of a 1 kHz tone at the same frequency as the transceiver,

3. Inject a 20dBu carrier (with no modulation), and tune the generator to produce a 1.5 kHz heterodyne in

- and confirm that the squelch opens with less than -12dBu injection when the SQL control is at 9 o'clock.
5. Turn off the RF generator, move the SQL control to 10 o'clock, select USB mode and adjust VR3009 so the squelch is just closed.
 6. Adjust the frequency of the RF generator (with no modulation) for a 1.5 kHz heterodyne in the receiver, and reduce the injection level to confirm that the squelch opens with less than 0dBu injection.
 7. Return to FM mode and turn the SQL control fully clockwise. Retune the RF generator to the transceiver frequency, and modulate with ± 3.5 kHz of a 1 kHz tone.
 8. Confirm that the squelch just opens with an injection level of 0dBu ± 5 dB.
- D. Digital Squelch (on RX Unit - requires RF generator)
1. Connect the RF generator to the 144 MHz antenna jack and tune it and the transceiver to the center of the 2m band, FM mode.
 2. Set the RF generator for -11 dBu injection of a 1 kHz tone with ± 3.5 kHz deviation.
 3. Adjust VR3004 so that the squelch just closes (BUSY indicator turns

- the receiver. -93dBm
4. With 20dBu carrier injection, adjust VR3010 for S-9 indication on the S-meter.
 5. Reduce the injection level to 0dBu and adjust VR3008 for S-2 indication. Then repeat step 4 and this step several times.
 6. Select the FM mode, and retune the RF generator to the same frequency as the transceiver (band center). Modulate the alignment signal with ± 3.5 kHz deviation of a 1 kHz tone. -53dBm
 7. Inject 60dBu and adjust VR3001 for full scale S-meter deflection.
 8. Reduce the injection level to 10dBu and adjust VR3001 for S-7 deflection.
 9. Repeat steps 7 and 8 several times.
- F. RX Carrier Point (on RX Unit - requires RF signal generator and frequency counter)
1. Connect the RF generator to the 144 MHz antenna jack, and the counter to jumper "B" in the diagram on the page 64.
 2. With the transceiver tuned to the center of the 2m band, select the USB mode, set the METER selector to S/PO and the SHIFT control to 12 o'clock.

off) while pressing the RESET button.

E. 144 MHz S-Meter Sensitivity (on RX Unit - requires RF generator)

1. Connect the RF generator to the .144 MHz antenna jack. Tune the transceiver to the center of the 2m band. Select USB mode and set the METER selector to S/PO, SQL control fully counterclockwise and RF gain control fully clockwise.
2. With no RF injection, adjust VR3011 so that the S-meter just begins to deflect.

3. Tune the RF generator 300 Hz below the displayed transceiver frequency, and set the injection for S-9 indication on the S-meter (with no modulation).

4. Now tune the RF generator 2700 Hz below the transceiver frequency (without changing injection level) and adjust L3001 again for S-9.

5. Change to LSB mode and repeat steps 3 and 4, but this time 3000 Hz and 2700 Hz above the transceiver frequency, adjusting L3002.

6. Change to FM mode, turn off the RF generator and adjust VR3011 for 13.2350 MHz ± 50 Hz on the counter.

— 66 —

(Receiver) ALIGNMENT

7. Disconnect the counter.

G. DISC Meter (on RX Unit - requires RF generator)

1. With the RF generator connected to the 144 MHz antenna jack, tune the transceiver and RF generator to the center of the 2m band, select the FM mode, and set the METER selector to DISC/A.L.C.

- a. METER selector to S/PO
 - b. SQL control fully clockwise
 - c. RF gain fully clockwise
 - d. AF gain to 10 o'clock
 - e. NOTCH control to 12 o'clock
 - f. NOTCH button ON (depressed)
3. Tune the RF generator 1.5 kHz above the receiver frequency and adjust L3011 for minimum S-meter deflection. Then adjust VR3007 for

2. With 20dBu injection of a 1 kHz tone with ± 3.5 kHz deviation, adjust VR3006 so that the meter deflects to the center ("5" on the PO scale).

H. Scanner Center Stop (on RX Unit - requires RF generator)

1. With the RF generator connected to the 144 MHz antenna jack and set for 20dBu injection with no modulation, tune the transceiver and RF generator to the center of the 2m band, select the FM mode, and set the SQL and RF gain controls fully clockwise.
2. Tune the RF generator frequency back and forth slightly while watching the BUSY indicator, noting the frequencies above and below the transceiver frequency at which the indicator turns off.
3. Calculate the offsets of these frequencies from the frequency displayed on the transceiver. If these are not the same, adjust VR3005 and repeat step 2 until they are.

I. Notch Filter (on RX Unit, requires RF generator)

1. With the RF generator connected

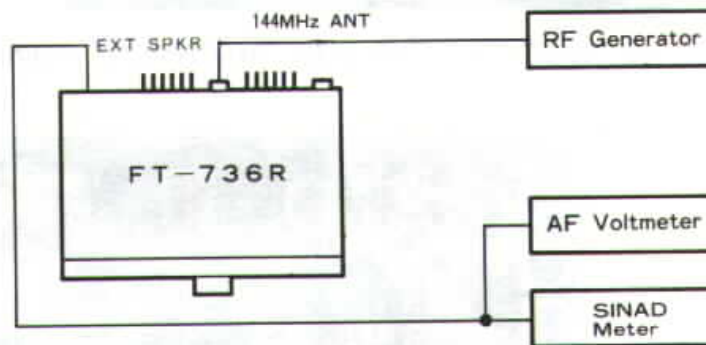
detection. Then adjust VR3007 for best null of the 1.5 kHz heterodyne in the loudspeaker.

J. Noise Blanker (on RX Unit - requires RF generator and DC voltmeter)

1. With the RF generator connected to the 144 MHz antenna jack, connect the DC voltmeter to point "B" in the diagram on the page 64.
2. Tune the transceiver and RF generator to the center of the 2m band, and inject a 20dBu carrier with no modulation.
3. Select the USB mode, set the RF gain fully clockwise and adjust T3006 and T3007 for minimum deflection on the voltmeter.
4. Disconnect the voltmeter.

K. 144 MHz Receiver Overall Check

1. Connect the test equipment as shown below.



2. Select FM mode, set the METER selector to S/PO, SQL fully counter-clockwise, AF gain to 10 o'clock

to the 144 MHz antenna jack, set for 5dBu injection with no modulation.

2. Tune the transceiver to the center of the 2m band, select the USB mode, and set the following controls:

erclockwise, AT gain to 10 o'clock and RF gain fully clockwise.

3. Tune the transceiver and RF generator to the center of the 2m band and set the injection level for S-9 indication with ± 3.5 kHz deviation of a 1 kHz tone.

— 67 —

ALIGNMENT (Receiver)

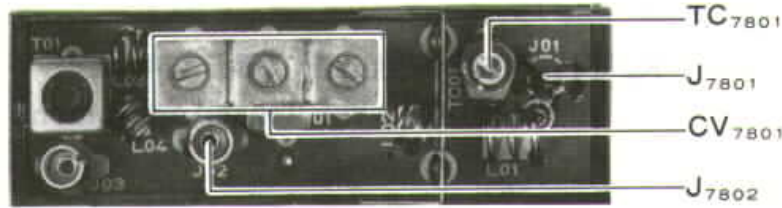
4. Tune the transceiver and RF generator to the high and low band edges and confirm that the injection level required for S-9 indication is within ± 3 dB of that at band center.
5. Retune the transceiver and RF generator to band center, and confirm that 12dB SINAD is better than -9dB.
6. Select the USB mode and set the injection level to -10dB with no modulation. Confirm at least 12dB (S+N)/N.
7. Remove the test equipment.

M. 430 MHz RX IF (on 430 MHz RX Unit - requires RF generator)

1. Connect the RF generator to the 430 MHz antenna jack.
2. Set the transceiver to FM, METER selector to S/PO and RF gain fully clockwise.
3. Tune the RF generator and transceiver to the center of the 70cm band, and inject ± 7 kHz deviation of a 1 kHz tone at a level sufficient to produce S-7 deflection on the S-meter.
4. Adjust T7019-T7024 for peak S-meter deflection.

L. 430 MHz RX RF (on 430 MHz Front End Unit - requires tracking generator and spectrum analyzer)

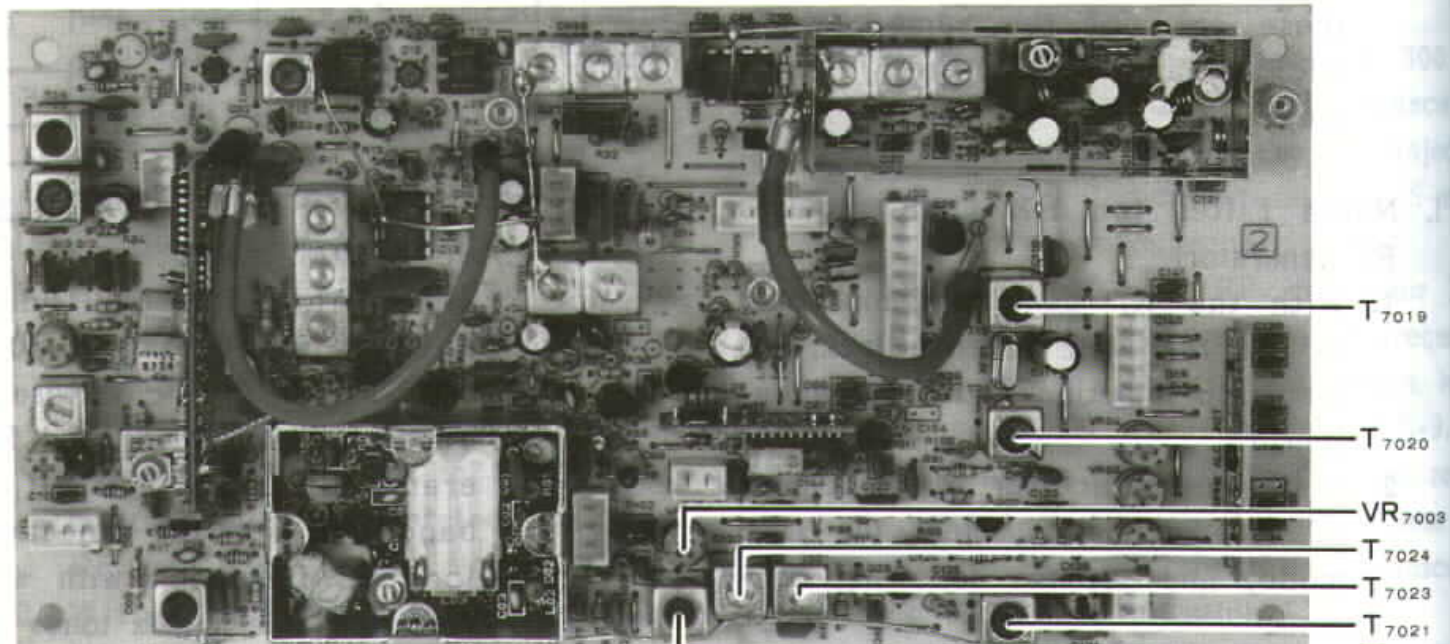
1. Connect the tracking generator to J7801 and the analyzer to J7802. Set the tracking generator level to about -30dBm, and reduce it if necessary to avoid saturation.
2. Adjust TC7801 and CV7801 for less than ± 5 dB ripple between 430 and 450 MHz.



430MHz FRONTEND UNIT ALIGNMENT POINTS

N. 430 MHz Module Gain (on 430 MHz RX Unit - requires RF generator)

1. Connect the RF generator to the 430 MHz antenna jack.
2. Set the transceiver to USB, METER selector to S/PO and RF gain fully clockwise.
3. Tune the transceiver to the center of the 70cm band.
4. Inject a 20dBu carrier with no modulation 1.5 kHz above the transceiver frequency, and adjust VR7003 for S-9 deflection on the S-meter.



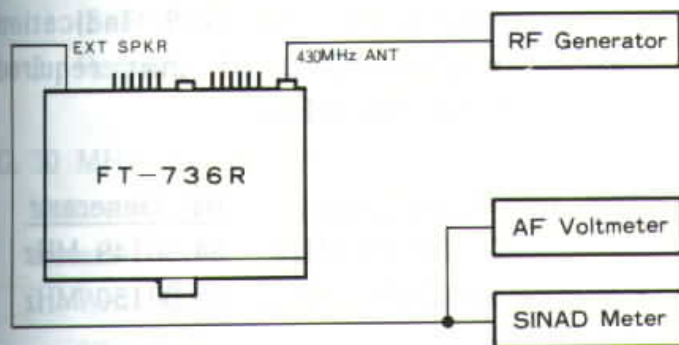
430MHz RX UNIT ALIGNMENT POINTS

— 68 —

(Receiver
FEX-736-50) ALIGNMENT

0. 430 MHz Receiver Overall Check

1. Connect the test equipment as shown below.



2. Select the FM mode, set the METER selector to S/PO, SQL fully counterclockwise, AF gain to 10 o'clock and RF gain fully clockwise.
3. Tune the transceiver and RF generator to the center of the 70cm band and set the injection level for S-9 indication with ± 3.5 kHz deviation of a 1 kHz tone.
4. Tune the transceiver and RF generator to the high and low band

IV. FEX-736-50

- A. 50 MHz PLL Sub Loop (on 50 MHz PLL Unit - requires oscilloscope and DC voltmeter)
 1. Connect the 'scope to TP1001 and the DC voltmeter between TP1002 and chassis ground.
 2. Tune the transceiver to 52.00000 MHz, CW mode, and adjust T1002-T1005 for maximum amplitude on the 'scope.
 3. Retune the transceiver to 52.01999 MHz and adjust L1016 for 4.2V on the voltmeter.
 4. Retune the transceiver to 52.02000 MHz and confirm at least 0.6V on the voltmeter.
 5. Disconnect the 'scope and voltmeter.
- B. 50 MHz PLL VCXO (on 50 MHz PLL Unit - requires DC voltmeter)

e center
with no
ove the
nd adjust
n on the

edges and confirm that the injection level required for S-9 indication is within $\pm 3\text{dB}$ of that at band center.

5. Retune the transceiver and RF generator to band center, and confirm that 12dB SINAD is better than -9dB.
6. Select the USB mode and set the injection level to -10dB with no modulation. Confirm at least 12dB (S+N)/N.
7. Remove the test equipment.

1. Connect the voltmeter between the exposed lead of R1055 and chassis ground.
2. Tune the transceiver to 52.01999 MHz, CW mode, and adjust L1009 for 6.0V on the voltmeter.
3. Retune the transceiver to 52.02000 MHz and confirm at least 1.0V on the voltmeter.
4. Disconnect the voltmeter.

C. 50 MHz PLL Main Loop (on 50 MHz PLL Unit - requires DC and RF voltmeters)

1. Connect the DC voltmeter between the exposed lead of R1022 and chassis ground. Connect the RF voltmeter to pin 1 of J1001.
2. Tune the transceiver to 53.99999 MHz, CW mode, and adjust L1003 for 6.0V on the voltmeter.
3. Retune the transceiver to 50.00000 MHz and confirm at least 2.0V on the DC voltmeter.
4. Retune the transceiver to 52.00000 MHz and adjust T1001 for maximum on the RF voltmeter.
5. Disconnect the voltmeters.

T7019

T7020

VR7003

T7024

T7023

T7021

T7022

ALIGNMENT (FEX-736-50)

D. 50 MHz RX (on 50 RF Unit - require RF generator)

1. Connect the RF generator to the 50 MHz antenna jack.
2. Set the transceiver to FM mode, the METER selector to S/PO and RF gain fully clockwise.
3. Tune the transceiver and RF generator to 52.00000 MHz. Inject a 1 kHz tone with ± 7 kHz deviation at a level sufficient to produce an S-7 reading on the S-meter.
4. Adjust T2001-T2004 and T2007-T2009 for peak S-meter deflection.

E. 50 MHz Module Gain (on 50 MHz RF Unit - requires RF generator)

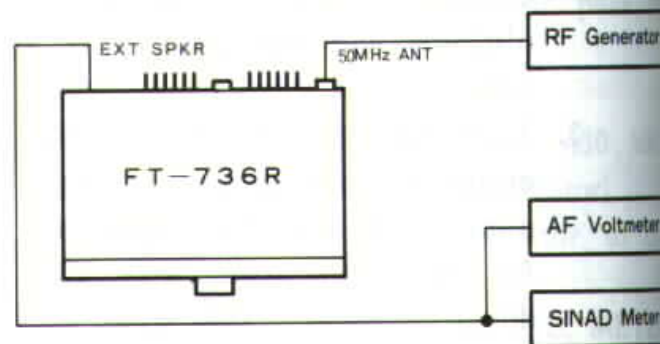
1. Connect the RF generator to the 50 MHz antenna jack.
2. Set the transceiver to USB, METER selector to S/PO and RF gain fully clockwise.
3. Tune the transceiver to 52.00000 MHz.
4. Inject a 20dBu carrier with no modulation 1.5 kHz above the transceiver frequency, and adjust VR2001 for S-9 deflection on the S-meter.

5. Tune the transceiver and RF generator as indicated below, and confirm that the injection level required for S-9 indication is within ± 3 dB of that required at 52.00000 MHz.

<u>Transceiver</u>	<u>RF Generator</u>
53.99999 MHz	54.00149 MHz
50.00000 MHz	50.00150 MHz

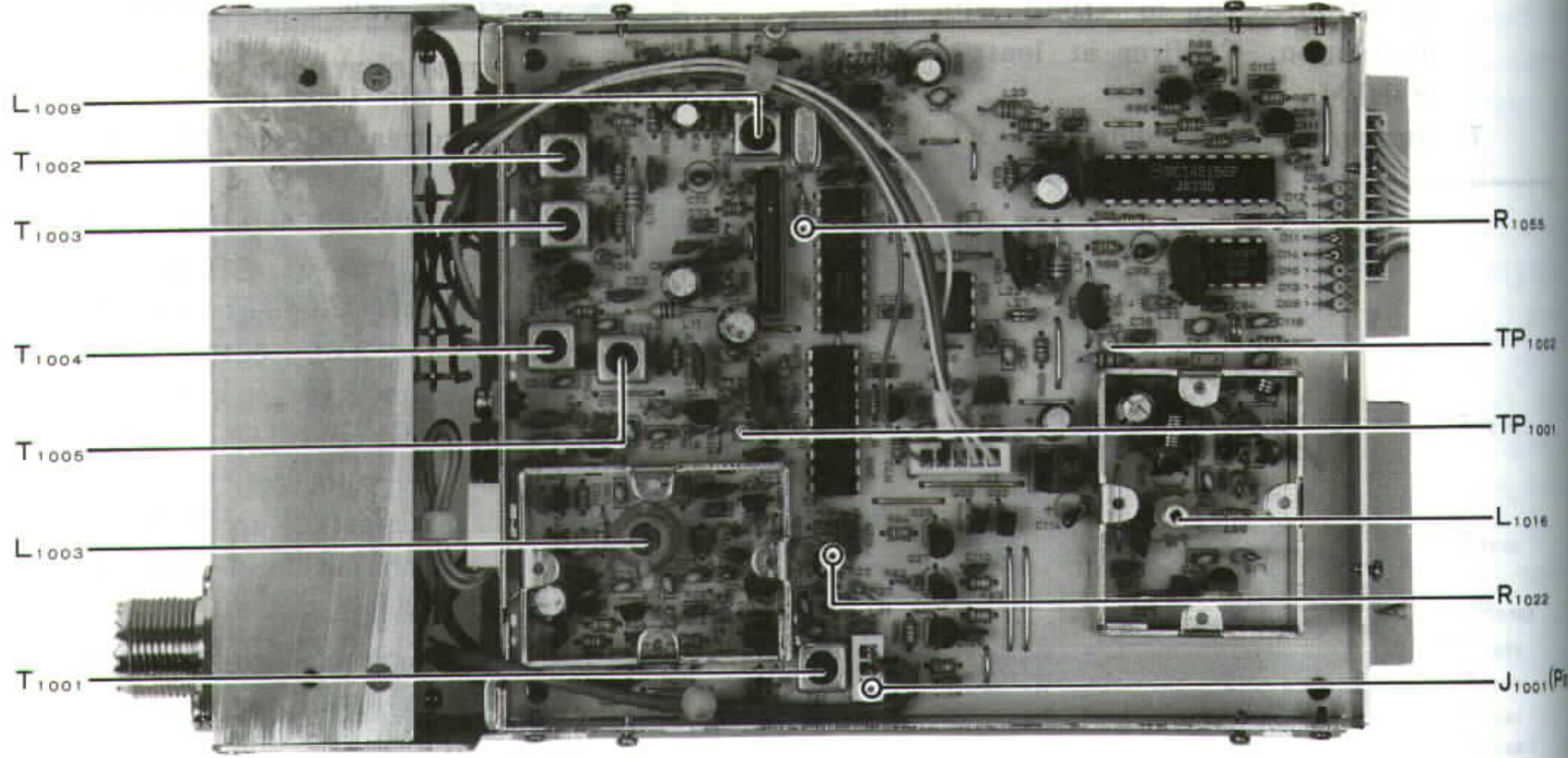
F. 50 MHz Receiver Overall Check

1. Connect the test equipment as shown below.



2. Select the FM mode, set the METER selector to S/PO, SQL fully counterclockwise, AF gain to 10 o'clock and RF gain fully clockwise.
3. Tune the transceiver and RF generator to 52.00000 MHz. Inject a 1 kHz tone with ± 7 kHz deviation

KHz tone with ± 3.5 KHz deviation, and confirm a 12dB SINAD of -9dB or better.



VR2003
 T2010
 VR2002
 D2019
 VR2001
 T2009
 T2007
 T2008

50MHz PLL UNIT ALIGNMENT POINTS

(FEX-736-50) ALIGNMENT

RF gen-
w, and
a level

4. Select the USB mode and set the injection level to -10dB with no modulation. Confirm at least 12dB

2. With the dummy load and wattmeter connected to the 50 MHz antenna iack. connect the DC voltmeter to

(S+N)/N.

5. Remove the test equipment.

G. 50 MHz TX IF, Part I (on 50 MHz RF Unit - requires dummy load and wattmeter)

1. With the dummy load and wattmeter connected to the 50 MHz antenna jack, tune the transceiver to 52.00000 MHz, FM mode.
2. Press the MOX button and set the DRIVE control for 4W output.
3. Adjust T2010-T2013 and TC2001 for peak on the wattmeter, reducing the DRIVE control setting, if necessary, to keep power output below 5W during adjustments.
4. Press the MOX button again to return to receive.

H. 50 MHz AFP (Automatic Final Protection, on 50 MHz RF Unit, requires dummy load, wattmeter and DC voltmeter)

1. Set the transceiver to the FM mode, turn the DRIVE control fully clockwise, and tune to 52.00000 MHz.

the anode of D2019.

3. Press the MOX button and adjust VR2004 for 1.0V on the voltmeter.
4. Press the MOX button to return to receive, and remove the voltmeter.

I. 50 MHz ALC level & PO Meter Sensitivity (on 50 MHz RF Unit - requires dummy load and wattmeter)

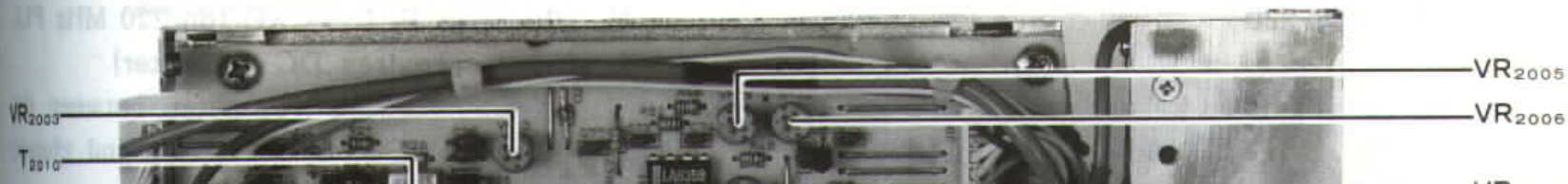
1. Set the transceiver to 52.00000 MHz, FM mode, and set the METER selector to the S/PO position.
2. With the dummy load and wattmeter connected to the 50 MHz antenna jack, set the DRIVE control fully clockwise.
3. Press the MOX button and alternately adjust VR2005 for 10W on the wattmeter and VR2006 for an indication of "8" on the PO meter scale, repeating both adjustments several times.
4. Press the MOX button to return to receive.

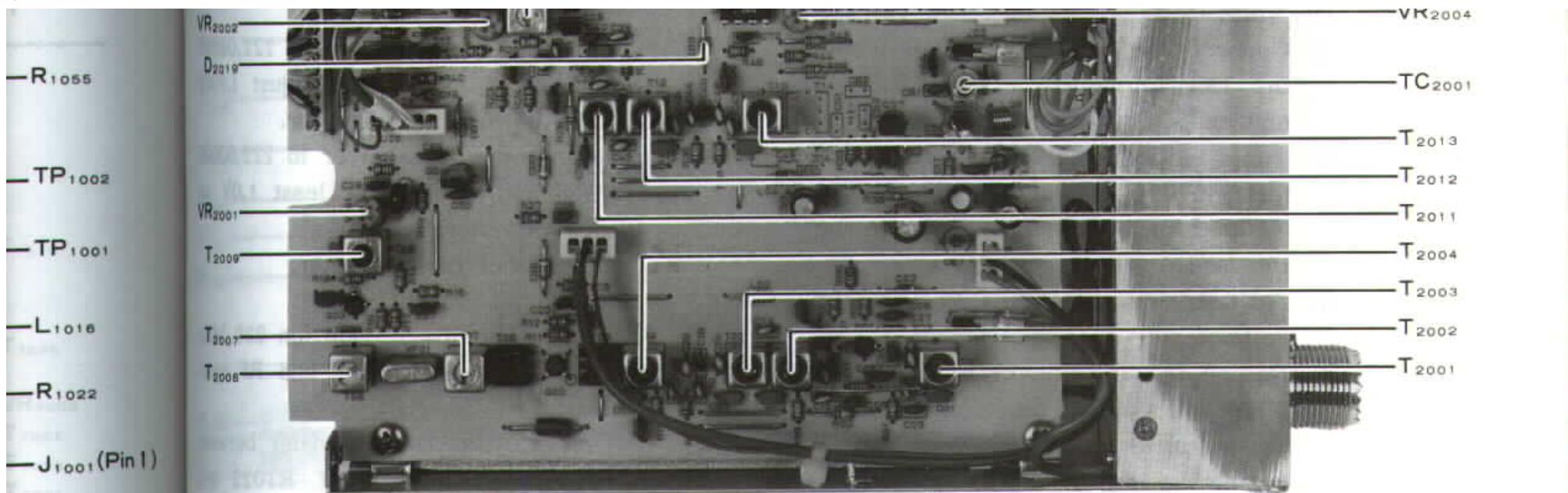
Generator

Voltmeter

WAD Meter

set the
QL fully
n to 10
y clock-
RF gen-
ject a 1
eviation,
of -9dB

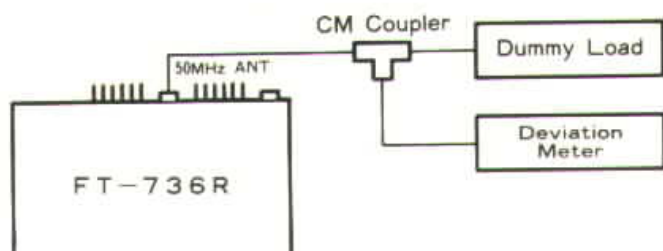




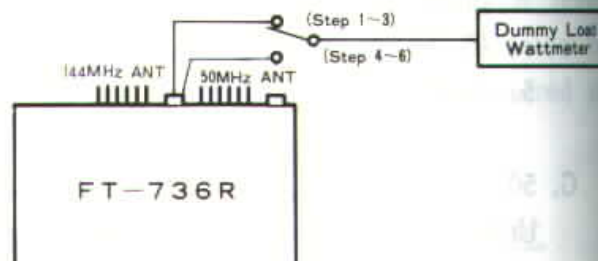
50MHz RF UNIT ALIGNMENT POINTS

ALIGNMENT (FEX-736-50 / FEX-736-220)

J. 50 MHz TX Mixer (on 50 MHz RF Unit)

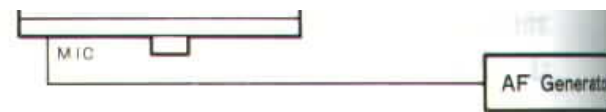


K. 50 MHz TX IF, Part II (on 50 MHz RF Unit)





1. Connect the test equipment as shown in the diagram above.
2. In FM mode, tune the transceiver to 52.00000 MHz, FM mode. Set the MIC Gain fully counterclockwise and DRIVE fully clockwise.
3. Press the MOX button and adjust VR2003 so that the spurs at 13.79 MHz on either side of the carrier are at least 65dB down.
4. Press the MOX button again to return to receive.



1. Connect the test equipment as shown above, with the AF generator set for 3mV @ 1 kHz.
2. Set the transceiver to USB, at the center of the 144 MHz band.
3. Set the DRIVE control fully clockwise, press the MOX button to transmit, and adjust the MIC gain for 5W output. Press the MOX button again to return to receive.
4. Retune the transceiver to 52.00000 MHz.
5. Press the MOX button and adjust VR2002 for 5W output.
6. Press the MOX button to return to receive, and disconnect the test equipment.

V. FEX-736-220

A. 220 MHz PLL Sub Loop (on 220 MHz PLL Unit - requires oscilloscope and DC voltmeter)

1. Connect the 'scope to TP1001 and the DC voltmeter between TP1002 and chassis ground.
2. Tune the transceiver to 222.01999 MHz CW mode, and adjust T1002-

B. 220 MHz PLL VCXO (on 220 MHz PLL Unit - requires DC voltmeter)

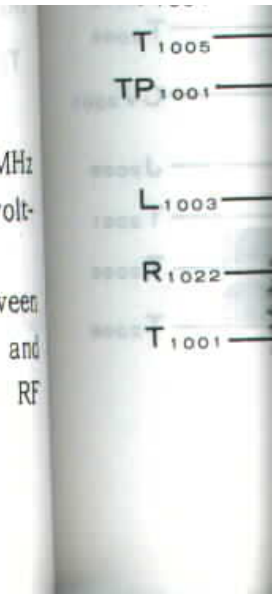
1. Connect the voltmeter between the exposed lead of R1055 and chassis ground.
2. Tune the transceiver to 222.01999 MHz, CW mode, and adjust L1009 for 6.0V on the voltmeter.
3. Retune the transceiver to 222.02000 MHz and confirm at least 1.0V on

- T1005 for maximum amplitude on the 'scope.
3. Adjust L1016 for 4.2V on the voltmeter.
 4. Retune the transceiver to 222.02000 MHz and confirm at least 0.6V on the voltmeter.
 5. Disconnect the 'scope and voltmeter.

- the voltmeter.
4. Disconnect the voltmeter.

- C. 220 MHz PLL Main Loop (on 220 MHz PLL Unit - requires DC and RF voltmeters)
1. Connect the DC voltmeter between the exposed lead of R1022 and chassis ground. Connect the RF voltmeter to pin 1 of J1001.

— 72 —



(FEX-736-220) ALIGNMENT

- MHz
- Load meter
2. Tune the transceiver to 224.99999 MHz, CW mode, and adjust L1003 for 6.0V on the voltmeter.
 3. Retune the transceiver to 220.00000 MHz and confirm at least 2.0V on the DC voltmeter.
 4. Retune the transceiver to 222.50000 MHz and adjust T1001 for maximum on the RF voltmeter.
 5. Disconnect the voltmeters.

- generator
- ent as gener-
- D. 220 MHz RX (on 220 RF Unit - requires tracking generator and spectrum analyzer)

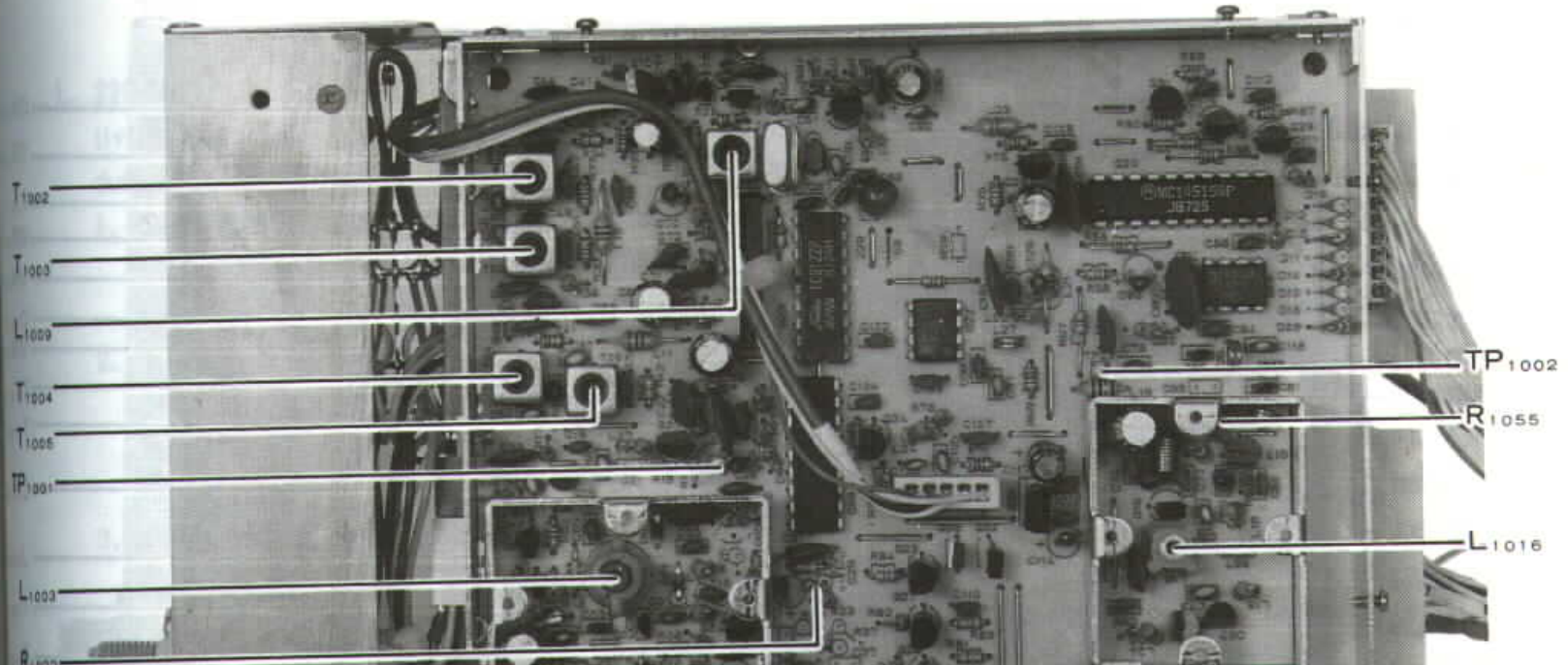
3. Remove the 'scope.
- F. 220 MHz RX IF (on 220 MHz RF Unit - requires RF generator)
1. Connect the RF generator to the 220 MHz antenna jack.
 2. Set the transceiver to FM, METER selector to S/PO and RF gain fully clockwise.
 3. Tune the RF generator and transceiver to 222.50000 MHz, and inject ± 7 kHz deviation of a 1 kHz tone at a level sufficient to produce S-7 deflection on the S-

at the
clock-
tion to
C gain
e MOX
ceive.
2.00000
d adjust
o return
the test
MHz PLL
ween the
d chassis
222.01999
st L1009
222.02000
t 1.0V on
220 MHz
RF volt-

1. Connect the tracking generator to the 220 MHz antenna jack and the analyzer to J2008. Set the tracking generator level to about -30dBm, reducing the level during adjustment, if necessary, to avoid saturation.
 2. Adjust T2001 and CV2001 for less ± 3 dB ripple between 220 and 225 MHz.
 3. Remove the test equipment.
- E. 220 MHz 2nd Local (on 220 MHz RF Unit - requires oscilloscope)
1. Connect the 'scope to the anode of D2002.
 2. Adjust T2016-T2018 for maximum amplitude on the 'scope.

meter.

4. Adjust T2004-T2009 for peak S-meter deflection.
- G. 220 MHz Module Gain (on 220 MHz RF Unit - requires RF generator)
1. Connect the RF generator to the 220 MHz antenna jack.
 2. Set the transceiver to USB, METER selector to S/PO and RF gain fully clockwise.
 3. Tune the transceiver to 222.50000 MHz.
 4. Inject a 20dBu carrier with no modulation 1.5 kHz above the transceiver frequency, and adjust VR2001 for S-9 deflection on the S-meter.



er between
R1022 and
ct the RF
01.



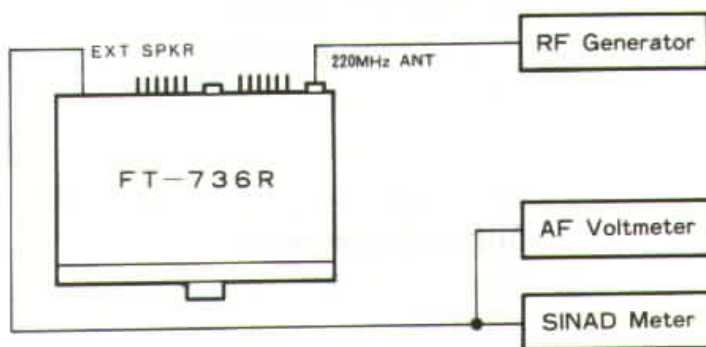
220MHz PLL UNIT ALIGNMENT POINTS

— 73 —

ALIGNMENT (FEX-736-220)

H. 220 MHz Receiver Overall Check

1. Connect the test equipment as shown below.



2. Select the FM mode, set the METER selector to S/PO, SQL fully counterclockwise, AF gain to 10 o'clock and RF gain fully clockwise.
3. Tune the transceiver and RF generator to 222.50000 MHz and set the injection level for S-9 indication with +3.5 kHz deviation of a

6. Select the USB mode and set the injection level to -10dB with no modulation. Confirm at least 12dB (S+N)/N.

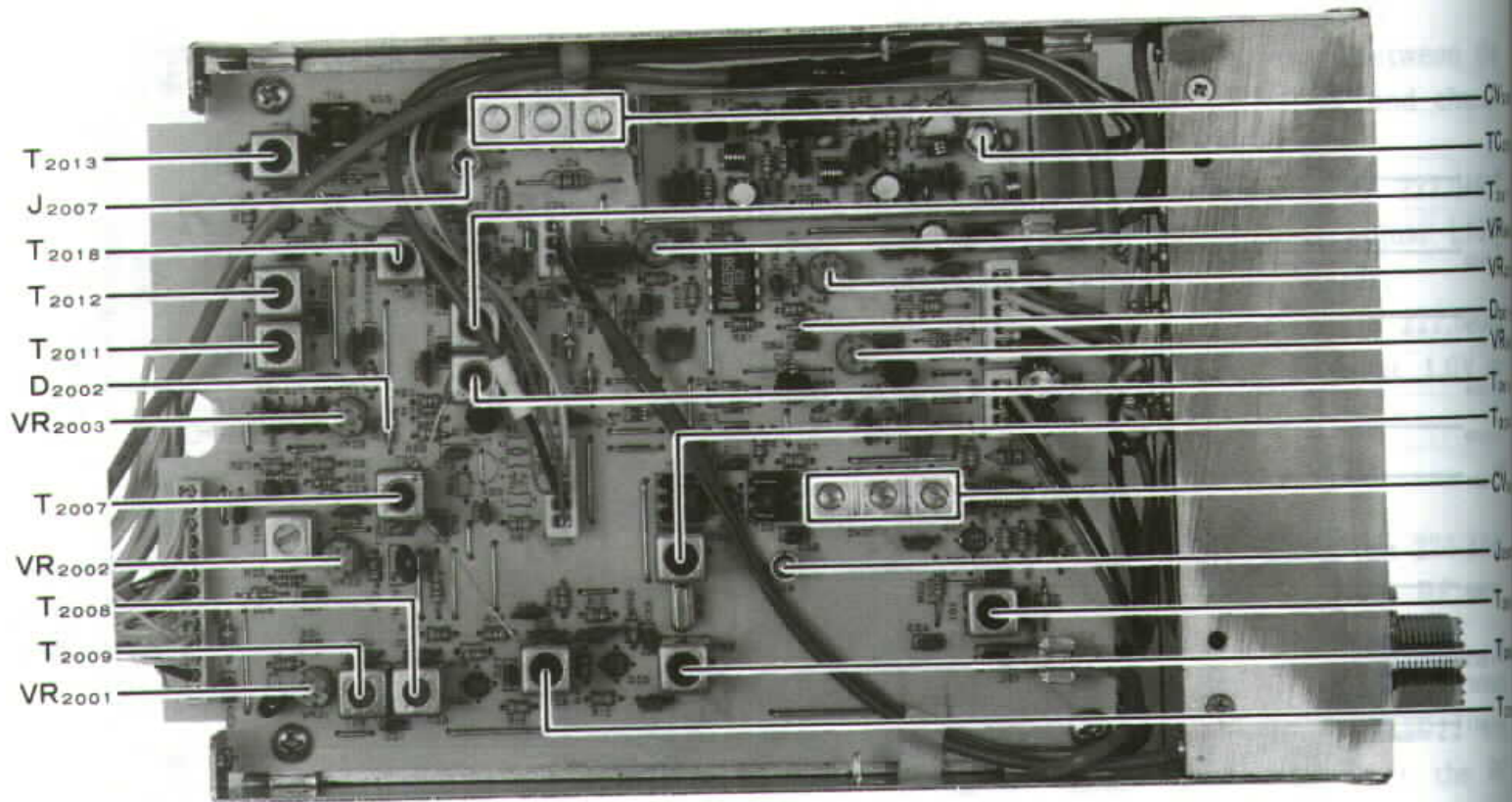
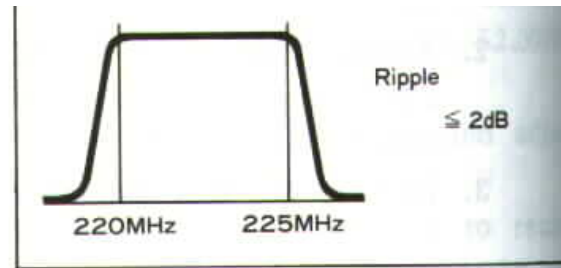
7. Remove the test equipment.

I. 220 MHz TX RF (on 220 MHz RF Unit - requires tracking generator and spectrum analyzer)

1. Connect the tracking generator to J2007 and couple the spectrum analyzer to the 220 MHz antenna jack.
2. Set the tracking generator output to -30dBm and adjust CV2002 for the passband shown (reducing injection level, if necessary, to avoid saturation).
3. Remove the test equipment.

1 kHz tone.

4. Tune the transceiver and RF generator to the high and low band edges and confirm that the injection level required for S-9 indication is within $\pm 3\text{dB}$ of that at band center.
5. Retune the transceiver and RF generator to 222.50000 MHz, and confirm that 12dB SINAD is better than -9dB.



220MHz RF UNIT ALIGNMENT POINTS

(FEX-736-220) ALIGNMENT

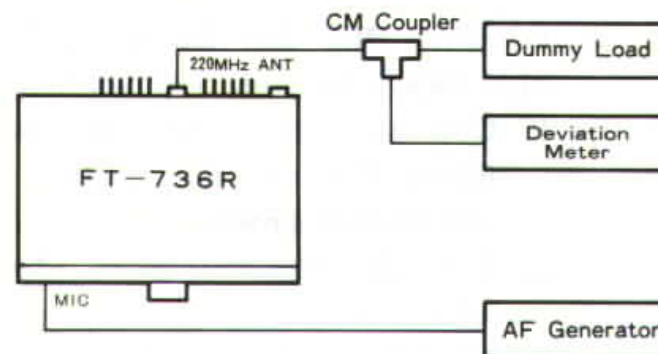
J. 220 MHz TX IF, Part I (on 220 MHz RF Unit - requires dummy load and wattmeter)

1. With the dummy load and wattmeter connected to the 220 MHz antenna jack, tune the transceiver to 222.50000 MHz, FM mode.
2. Press the MOX button and set the DRIVE control for 4W output.
3. Adjust T2011-T2013 and TC2002 for maximum deflection on the wattmeter (but do not exceed 5W output: reduce the DRIVE control setting, if necessary).
4. Press the MOX button again to return to receive.

K. 220 MHz AFP (Automatic Final Protection, on 220 MHz RF Unit -requires dummy load and DC voltmeter)

1. With the dummy load connected to the 220 MHz antenna jack, connect the DC voltmeter to the anode of D2014.
2. Set the transceiver to FM, 222.50000 MHz and set the DRIVE control fully clockwise

M. 220 MHz TX Mixer (on 220 RF Unit)



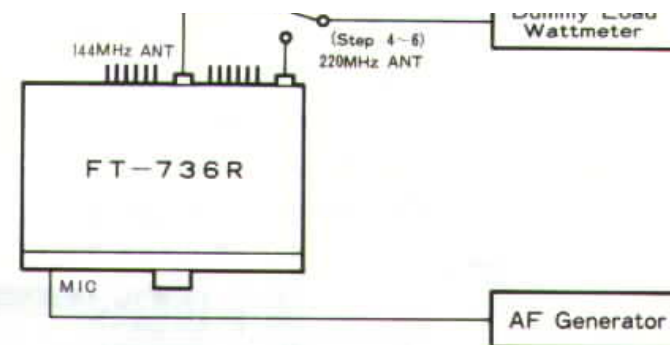
1. Connect the test equipment as shown in the diagram above.
2. In FM mode, tune the transceiver to 222.50000 MHz. Set the MIC gain fully counterclockwise and DRIVE fully clockwise.
3. Press the MOX button and adjust VR2003 so that the spuri at 13.79 MHz on either side of the carrier are at least 65dB down.
4. Press the MOX button again to return to receive.
5. Disconnect the test equipment.

N. 220 MHz TX IF, Part II (on 220 MHz RF Unit)

3. Press the MOX button and adjust VR2004 for 1.0V on the DC voltmeter.
4. Press the MOX button again to return to receive, and remove the voltmeter.

L. 220 MHz ALC level & PO Meter Sensitivity (on 220 MHz RF Unit - requires dummy load and wattmeter)

1. Set the transceiver to 222.50000 MHz, FM mode, and set the METER selector to the S/PO position.
2. With the dummy load and wattmeter connected to the 220 MHz antenna jack, set the DRIVE control fully clockwise.
3. Press the MOX button and alternately adjust VR2005 for 25W on the wattmeter and VR2006 for an indication of "8" on the PO meter scale, repeating both adjustments several times.
4. Press the MOX button to return to receive.



1. Connect the test equipment as shown above, with the AF generator set for 3mV @ 1 kHz.
2. Set the transceiver to USB, at the center of the 144 MHz band.
3. Set the DRIVE control fully clockwise, press the MOX button to transmit, and adjust the MIC gain for 5W output. Press the MOX button again to return to receive.
4. Retune the transceiver to 222.50000 MHz.
5. Press the MOX button and adjust VR2002 for 5W output.
6. Press the MOX button to return to receive, and disconnect the test equipment.

ALIGNMENT (FEX-736-1.2)

VI. PEX-136-1.2

A. 1.2 GHz PLL 2nd Local (on 1.2 GHz PLL Unit - requires DC voltmeter)

1. Connect the voltmeter between R1096 ("A" in the diagram below) and chassis ground.
2. Tune the transceiver to 1280.00000 MHz, FM mode, and adjust TC1001 for 4.0V on the voltmeter.
3. Remove the voltmeter.

B. 1.2 GHz PLL Sub Loop (on 1.2 GHz PLL Unit - requires DC voltmeter)

1. Connect the DC voltmeter between R1025 ("B" in the diagram below) and chassis ground.
2. Tune the transceiver to 1280.01999 MHz, USB mode, and adjust L1008 for 7.5V on the voltmeter.
3. Retune the transceiver to 1280.02000 MHz and confirm at least 1.0V on the voltmeter.
4. Disconnect the voltmeter.

C. 1.2 GHz PLL VCXO (on 1.2 GHz PLL Unit - requires AF and DC voltmeters)

1. Connect the AF millivoltmeter between L1012 ("C" in the diagram below) and chassis ground.
2. Connect the DC voltmeter between TP1001 and chassis ground.

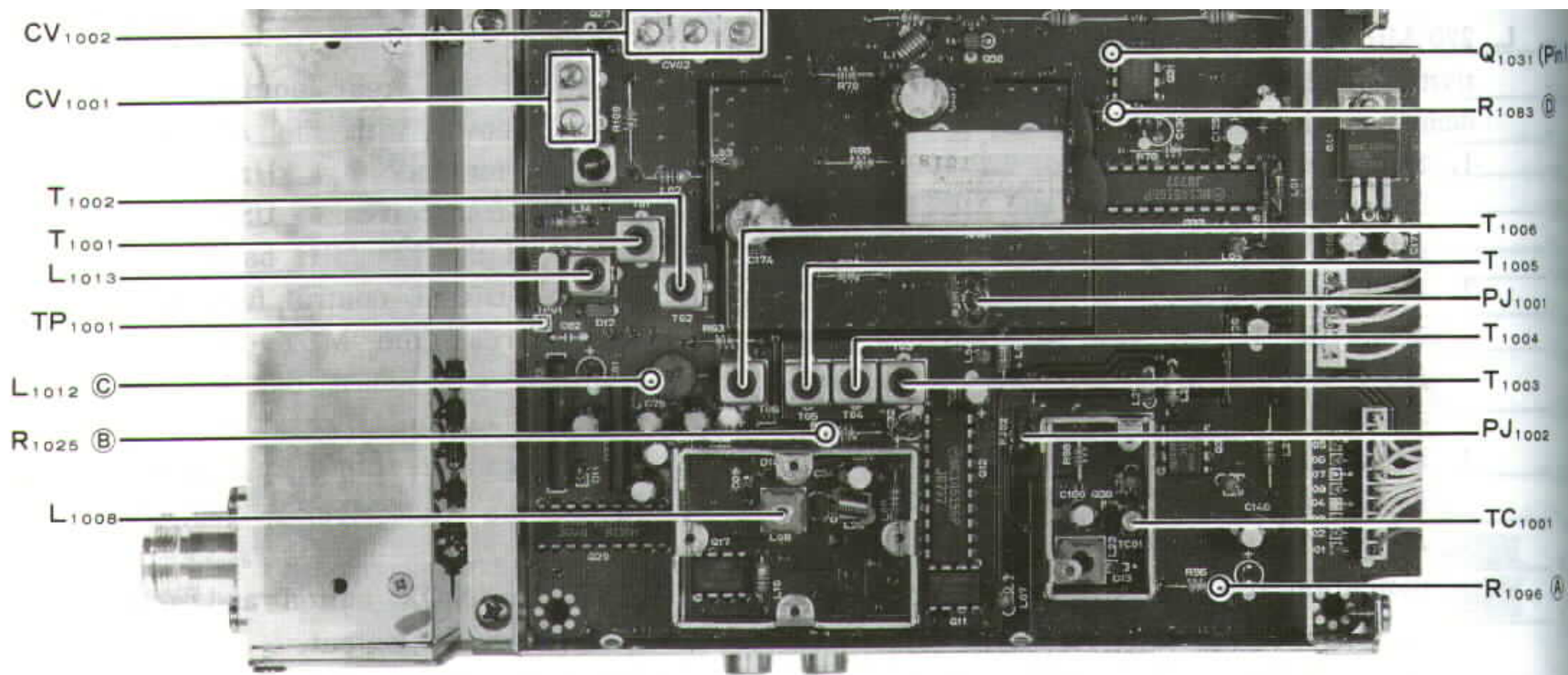
3. Tune the transceiver to 1280.00000 MHz, USB mode, and adjust T1001-T1006 for peak on the AF millivoltmeter.

4. Retune the transceiver to 1280.01999 MHz and adjust L1013 for 4.5V on the DC voltmeter.
5. Retune the transceiver to 1280.02000 MHz and confirm at least 1.0V on the DC voltmeter.
6. Disconnect the voltmeters.

D. 1.2 GHz PLL Main Loop (on 1.2 GHz PLL Unit - requires DC and RF voltmeters)

1. Connect the DC voltmeter between R1083 ("D" in the diagram below) and chassis ground. Connect the RF voltmeter to pin 1 of Q1031.
2. Tune the transceiver to the high band edge, USB mode, and adjust CV1001 and CV1002 for peak on the RF voltmeter. Confirm about 6.0V on the DC voltmeter.
3. Retune the transceiver to the low band edge and confirm at least 1.5V on the DC voltmeter.
4. Disconnect the voltmeters.

F.



1.2GHz PLL UNIT ALIGNMENT POINTS

— 76 —

(FEX-736-1.2) ALIGNMENT

E. 1.2 GHz PLL Overall Check (on 1.2 GHz PLL Unit - requires 50-ohm, $\frac{1}{4}$ -watt resistor and RF voltmeter)

1. Disconnect the TMP plug from PJ1002 and connect the 50-ohm resistor and RF voltmeter in its place.

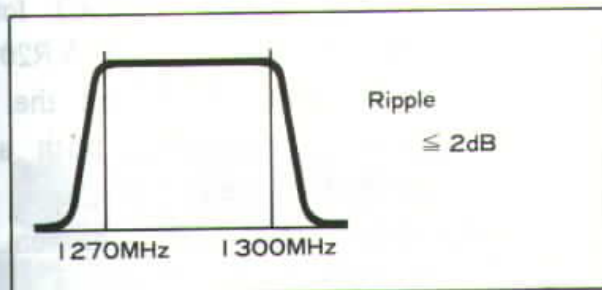
H. 1.2 GHz Module Gain (on 1.2 GHz RF Unit - requires RF generator)

1. Connect the RF generator to the 1.2 GHz antenna jack.
2. Set the transceiver to USB, METER selector to S/PO and RF gain fully clockwise.

2. Tune the transceiver to 1280.00000 MHz, FM mode, and confirm about -15dBm on the voltmeter.
3. Move the resistor and meter from PJ1002 to PJ1001 and confirm about +5dBm on the RF voltmeter.
4. Remove the resistor and meter, and replace the TMP plugs.

F. 1.2 GHz RX RF (on 1.2 GHz RF Unit - requires tracking generator and spectrum analyzer)

1. Connect the tracking generator to PJ2002 and the analyzer to PJ2003. Set the tracking generator level to about -30dBm, reducing the level during adjustment, if necessary, to avoid saturation.
2. Adjust CV2001 for the passband shown below.
3. Remove the test equipment.



G. 1.2 GHz RX IF (on 1.2 GHz RF Unit - requires RF generator)

1. Connect the RF generator to the 1.2 GHz antenna jack.
2. Set the transceiver to FM. METER

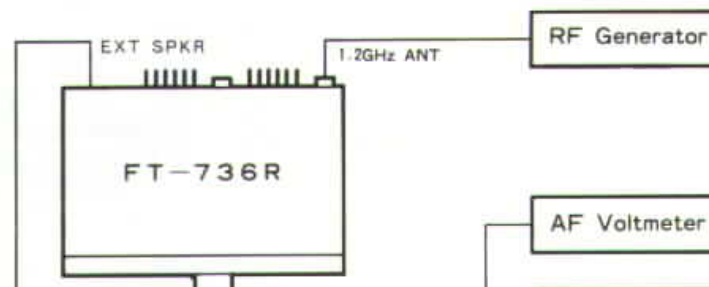
3. Tune to 1280.00000 MHz.
4. Inject a 20dBu carrier with no modulation 1.5 kHz above the transceiver frequency, and adjust VR2004 for S-9 S-meter deflection.
5. Tune the transceiver and RF generator as indicated below, and confirm that the injection level required for S-9 indication is within $\pm 3\text{dB}$ of that required at 1280.00000 MHz.

<u>Transceiver</u>	<u>RF Generator</u>
1299.99999 MHz	1300.00149 MHz
1260.00000 MHz	1260.00150 MHz

6. Connect the jumper plug at J2001 and retune the transceiver to 1280.00000 MHz.
7. Inject a 40dB carrier with no modulation 1.5 kHz above the transceiver frequency, and adjust TC2001 for S-9 S-meter deflection.

I. 1.2 GHz Receiver Overall Check

1. Connect the test equipment as shown below.



selector to S/PO and RF gain fully clockwise.

3. Tune the RF generator and transceiver to 1280.00000 MHz, and inject ± 7 kHz deviation of a 1 kHz tone at a level sufficient to produce S-7 deflection on the S-meter.
4. Adjust T2001-T2010 for peak S-meter deflection.



2. Select the FM mode, set the METER selector to S/PO, SQL fully counterclockwise, AF gain to 10 o'clock and RF gain fully clockwise.
3. Tune the transceiver and RF generator to 1280.00000 MHz. Inject a 1 kHz tone with ± 3.5 kHz deviation, and confirm a 12dB SINAD better than -9dB.

— 77 —

ALIGNMENT (FEX-736-1.2)

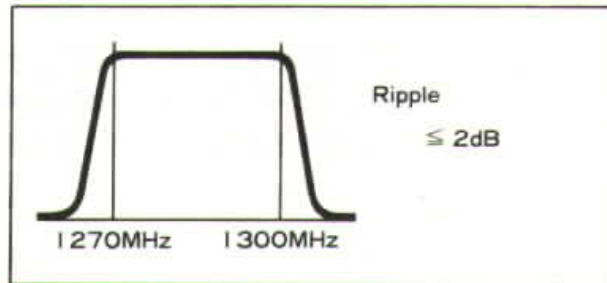
4. Select the USB mode and set the injection level to -10dB with no modulation. Confirm at least 12dB (S+N)/N.
 5. Remove the test equipment.
- J. 1.2 GHz TX RF (on 1.2 GHz RF Unit- requires tracking generator and spectrum analyzer)
1. Connect the tracking generator to PJ2004 and the spectrum analyzer to PJ2001.
 2. Set the tracking generator output to -20dBm and adjust CV2002 and

K. 1.2 GHz TX IF, Part I (on 1.2 GHz RF Unit - requires dummy load and wattmeter)

1. With the dummy load and wattmeter connected to the 1.2 GHz antenna jack, tune the transceiver to 1280.00000 MHz, FM mode.
2. Press the MOX button and set the DRIVE control for 4W output.
3. Adjust T2011 and T2013-T2016 for maximum deflection on the wattmeter (but do not exceed 5W output: reduce the DRIVE control

to -50dBm and adjust CV2003 and CV2004 for the passband shown below (reducing injection level, if necessary, to avoid saturation).

3. Remove the test equipment.



setting, if necessary).

4. Press the MOX button again to return to receive.

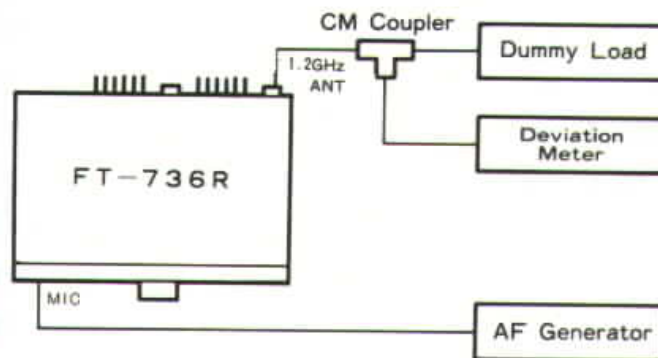
- L. 1.2 GHz ALC level & PO Meter Sensitivity (on 1.2 GHz RF Unit - requires dummy load and wattmeter)

1. Set the transceiver to 1280.00000 MHz, FM mode, and set the METER selector to the S/PO position.
2. With the dummy load and wattmeter connected to the 1.2 GHz antenna jack, set the DRIVE control fully clockwise.
3. Press the MOX button and alternately adjust VR2002 for 10W on the wattmeter and VR2003 for an indication of "8" on the PO meter scale, repeating both adjustments several times.
4. Press the MOX button to return to receive.

PJ₂₀₀₄T₂₀₁₆T₂₀₁₃T₂₀₁₄T₂₀₁₅VR₂₀₀₆T₂₀₁₁T₂₀₀₂VR₂₀₀₅T₂₀₁₀T₂₀₀₄VR₂₀₀₄T₂₀₀₄T₂₀₀₈T₂₀₀₇T₂₀₀₆

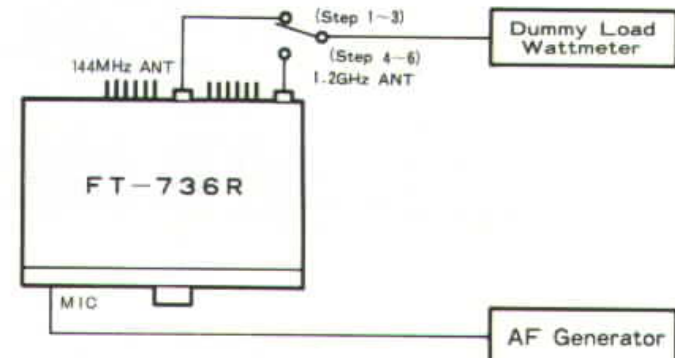
(FEX-736-1.2) ALIGNMENT

M. 1.2 GHz TX Mixer (on 1.2 GHz RF Unit)



1. Connect the test equipment as shown in the diagram above.
2. In FM mode, tune the transceiver to 1280.00000 MHz. Set the MIC gain fully counterclockwise and DRIVE fully clockwise.
3. Press the MOX button and adjust VR2003 so that the spuri at 13.79 MHz on either side of the carrier

N. 1.2 GHz TX IF, Part II (on 1.2 GHz RF Unit)



1. Connect the test equipment as shown above, with the AF generator set for 3mV @ 1 kHz.
2. Set the transceiver to USB, at the center of the 144 MHz band.
3. Set the DRIVE control fully clockwise, press the MOX button to transmit, and adjust the MIC gain for 5W output. Press the MOX

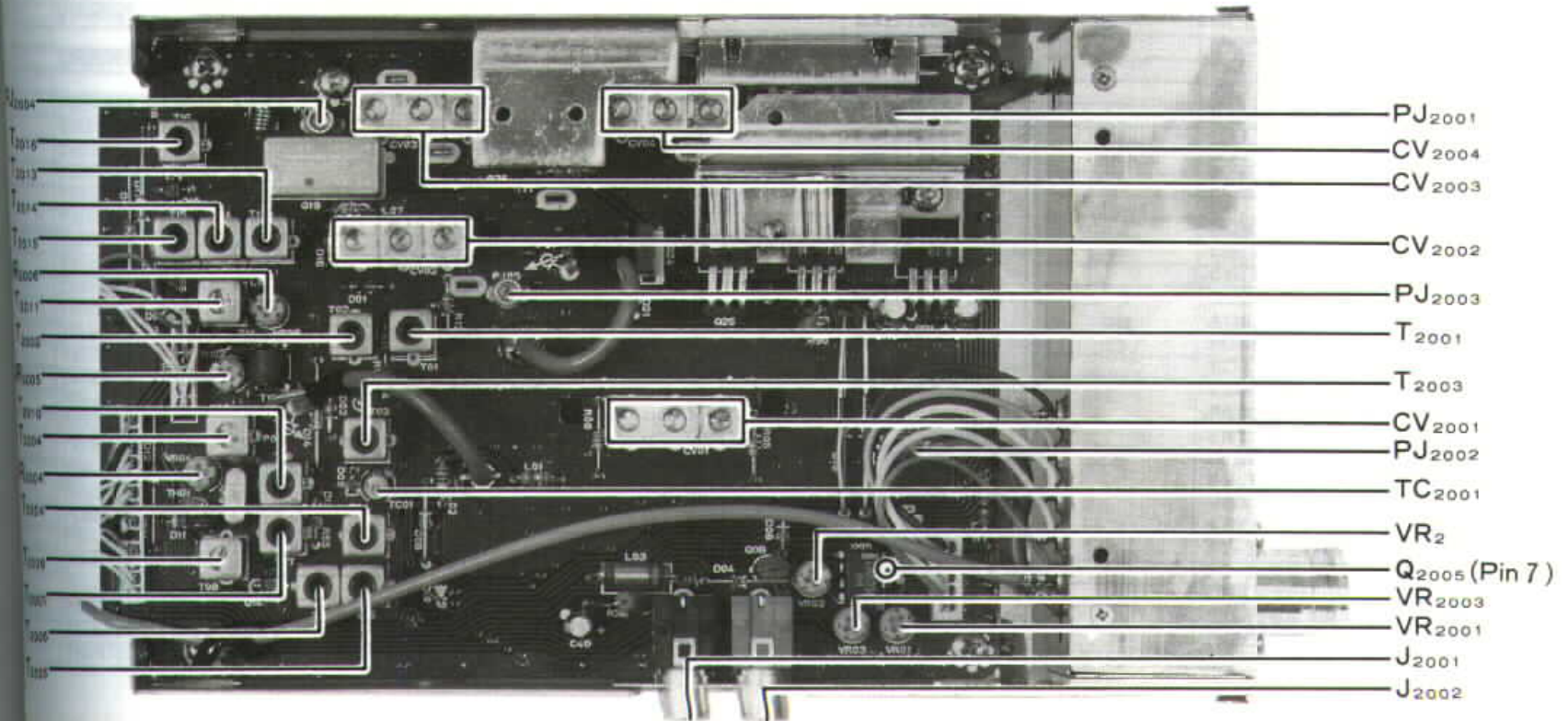
0.00000
 METER
 .
 attmeter
 antenna
 ol fully

 i alter-
 10W on
 for an
 O meter
 ustments

 o return

- are at least 65dB down.
- 4. Press the MOX button again to return to receive.
- 5. Disconnect the test equipment.

- button again to return to receive.
- 4. Retune the transceiver to 1280.00000 MHz, FM mode.
- 5. Press the MOX button and adjust VR2005 for 5W output.
- 6. Press the MOX button to return to receive, and disconnect the test equipment.



1.2GHz RF UNIT ALIGNMENT POINTS

NOTES

Symbol No.	Part
Q1	G1090
Q2	G1090
Q3	G1090
Q4	G3334
RI(10W)	J01225
C6	K21174
C7	K21174
C8	K21174
C9	K21174
C10	K21174
C11	K21174
C12	K21174
C13	K21174
C14	K21174
C15	K21174
L2	L21900
	L91900
M1	M02900
SP1	M40900
R1	N40900
T1	T92055
J1	P00906
J4	P10903
25(N Type)	P10903
25(N Type)	P10905

MAIN CHASSIS			
Part No.	Description	Device	
G1090294	IC	uPC7808H	
G1090778	IC	L7809	
G1090778	IC	L7809	
G3334200G	Transistor	2SC3420GR	
J01225682	Carbon Film RES.	1/6W 6.8k ohm	PJ
K21170002	Feed Through CAP.	50WV 0.001uF	
K21170002	Feed Through CAP.	50WV 0.001uF	
K21170002	Feed Through CAP.	50WV 0.001uF	
K21170002	Feed Through CAP.	50WV 0.001uF	
K21170002	Feed Through CAP.	50WV 0.001uF	
K21170002	Feed Through CAP.	50WV 0.001uF	
K21170002	Feed Through CAP.	50WV 0.001uF	
K21170002	Feed Through CAP.	50WV 0.001uF	
K21170002	Feed Through CAP.	50WV 0.001uF	
K21170002	Feed Through CAP.	50WV 0.001uF	
K21170002	Feed Through CAP.	50WV 0.001uF	
L7190002	Coil		
L9190035	Ferrite Beads		
M0290055	Meter		
M4090047	Speaker		
M4090020	Push Switch		
T9205548A	Connector (13.8V DC)		
P0090608	Connector (AC)		
P1090352	Connector (144MHz ANT)		
P1090352	Connector (430MHz ANT)		
P1090547	Connector (430MHz ANT)		
Q0000006	Fuse	4A	
Q0000003	Fuse	2A	
P2000012	Fuse Holder		
Q1000047	Lamp		
Q1000047	Lamp		
Q9000358A	Rotary Encoder	MAIN DIAL	
T9205523	Wire ASSY		P40-P70
T9205524A	Wire ASSY		P42-P4
T9205525	Wire ASSY		P43-P50
T9205526B	Wire ASSY		P44-P71, P119
T9205527A	Wire ASSY		P45
T9205528	Wire ASSY		P56-P63
T9205529A	Wire ASSY		P57-P46
T9205530	Wire ASSY		P58-P114
T9205531A	Wire ASSY		P60-P112, P121
T9205532	Wire ASSY		P61-P100
T9205533A	Wire ASSY		P65-P118
T9205534	Wire ASSY		P68-P75, P76, P79
T9205535	Wire ASSY		P69-P23, P24, P83, P93, P94
T9205536B	Wire ASSY		P72-P73
T9205537	Wire ASSY		P77
T9205538B	Wire ASSY		P92-P84-P97-P91
T9205540	Wire ASSY		P86-P99
T9205542A	Wire ASSY		P103-P120
T9205543A	Wire ASSY		P123-P128
T9205609	Wire ASSY		P88
T9205547E	Wire ASSY		
T9205553	Wire ASSY		P109
T9316102	Wire ASSY		P95-P87
R0804550B	Chassis		
R0509930	Panel Rear		
R5804580A	Heat Sink		
R0509940	Shield Case PA.		
R0804620B	Front Panel		
R1804590	Case Top		
R1804600	Case Bottom		
R7082630	SP Net		
R0083600	Mount Spring		
R3084745	Handle		
R0115070	Handle Shaft		
R4115020	Handle End		
R3054370	Foot		30
S4000025	Foot		FF-008
R6025944B	Support D		
R6119640	Nut		
S6000032	Nylon Rivet		3.0x5.5
S6000031	Nylon Rivet		3.0x4.5
R1122150	Cover		
R0123770	Ground Lead		
S5000057	Lead Clamper		L=38
R6124610	Support		
R0804610	Panel		
R7121180	Window		
R8116670	Plate		
R3116100A	Knob		MAIN DIAL
R3078110C	Ring		MAIN DIAL
R3121200	Knob		PRI,0
R3121201	Knob		VFO,1
R3121202	Knob		MR,2
R3121203	Knob		PMS,3
R3121204	Knob		VIM,4
R3121205	Knob		REV,5
R3121206	Knob		STEP,6
R3121207	Knob		MCK,7
R3121208	Knob		TSET,8

T9205498	Wire ASSY	P1-P48, P49	R3121209	Knob	V-M, 9
T9205499C	Wire ASSY	P2-P33, P34, P41	R3121210	Knob	CLAR, CODE
T9205500A	Wire ASSY	P3-P53, P54	R3121211	Knob	BAND, SHIFT
T9205501C	Wire ASSY	P5-P82	R3121212	Knob	CALL1, *
T9205502B	Wire ASSY	P6-P96	R3121213	Knob	CALL2, #
T9205503	Wire ASSY	P11-P125	R3121214	Knob	SPEAK
T9205504	Wire ASSY	P12-P27	R3115320	Knob	UP
T9205505	Wire ASSY	P13-P23, P26	R3115330	Knob	DOWN
T9205506	Wire ASSY	P14-P28	R3115340	Knob	CH UP
T9205507A	Wire ASSY	P15-P29	R3115350	Knob	CH DOWN
T9205508	Wire ASSY	P16-P101	R3116820	Knob	MODE, RESET, CAC, AQS, DSQL
T9205509	Wire ASSY	P17	R3115310	Knob	POWER
T9205510	Wire ASSY	P19-P108, P110	R3115390A	Knob	MOX
T9205511A	Wire ASSY	P20-P126	R3115400B	Knob	PROC, KEYER, BURST, PAUSE, DIM, VFO, F, ENT, T CALL PREAMP
T9205512	Wire ASSY	P21-P106			D LOCK, FMCH, SSBCH, NB, NOTCH
T9205513B	Wire ASSY	MIC JACK	R3119630	Knob	VOX, KEYER SPEED, AGC
T9205514	Wire ASSY	P25-P59	R3111182	Knob	FT-14VK(METER, SAT)
T9205515A	Wire ASSY	P30-P64	R3101020B	Knob	FT-18XK(MONITOR)
T9205516A	Wire ASSY	P31-P18	R3085851	Knob	CHANNEL
T9205517	Wire ASSY	P32-P105	R3510180	Knob	FT-13WK
T9205518	Wire ASSY	P35-P116	R3100770B	Knob	(MIC, SQL, AF, SHIFT)
T9205519	Wire ASSY	P36-P127			
T9205520	Wire ASSY	P37-P124			
T9205521	Wire ASSY	P38-P113, P115, P116			
T9205522	Wire ASSY	P39-P52			

PARTS LIST

R6100760A	Knob	FT-18D (DRIVE, TONE, RF, NOTCH)	D3005	G2090408	Diode	1SS270	R3013	J022
Q6000093	Terminal		D3006	G2090408	Diode	1SS270	R3014	J012
Q6000001	Terminal Strip		D3007	G2015880	Diode	1S1588	R3015	J022
Q9000078	Terminal		D3008	G2015880	Diode	1S1588	R3016	J012
S2000006	Color Cap		D3009	G2015880	Diode	1S1588	R3017	J022
Q7000065	Power Supply		D3010	G2001880F	Diode	1S188PM1	R3018	J022
			D3011	G2001880F	Diode	1S188PM1		
			D3012	G2090118	Diode	1SS97		
			D3013	G2090338	Diode	1SS81		
			D3014	G2090338	Diode	1SS81		
			D3015	G2090338	Diode	1SS81		

RX UNIT

Symbol No.	Part No.	Description	Device						
	F2887101A	Printed Circuit Board		D3016	G2090338	Diode	1SS81	R3019	J0222
	C028871AA	PCB with Components w/o AF-LPF UNIT, FM-SCAN UNIT, SSB-SCAN UNIT, 13MHz-RX-PLL UNIT		D3017	G2090027	Diode	1SS53	R3020	J0121
	C028871AB	PCB with Components w/o AF-LPF UNIT, FM-SCAN UNIT, SSB-SCAN UNIT, 13MHz-RX-PLL UNIT		D3018	G2090027	Diode	1SS53	R3021	J0222
Q3001	G3305350A	Transistor	2SC535A	D3019	G2090338	Diode	1SS81	R3022	J0221
Q3002	G3304600B	Transistor	2SC460B	D3020	G2090338	Diode	1SS81	R3023	J0121
Q3003	Q1090101	IC	uPC1037H	D3021	G2001880F	Diode	1S188FM1	R3024	J0121
Q3004	G3304600B	Transistor	2SC460B	D3022	G2001880F	Diode	1S188FM1	R3025	J0222
Q3005	G3305350B	Transistor	2SC535B	D3023	G2090118	Diode	1SS97	R3026	J0121
Q3006	G3801250	FET	2SK125	D3028	G2090408	Diode	1SS270	R3028	J0222
Q3007	G3802410G	FET	2SK241GR	D3029	G2090023	Diode	1SV50	R3029	J0121
Q3008	G3802410G	FET	2SK241GR	D3030	G2090408	Diode	1SS270	R3030	J0222
Q3009	G3305350B	Transistor	2SC535B	D3031	G2001880F	Diode	1S188FM1	R3031	J0222
Q3010	G3304580C	Transistor	2SC458C	D3032	G2001880F	Diode	1S188FM1	R3032	J0222
Q3011	G3304580C	Transistor	2SC458C	D3033	G2015550	Diode	1S1555	R3033	J0222
Q3012	G3304580C	Transistor	2SC458C	D3034	G2090408	Diode	1SS270	R3034	J0121
Q3013	G3304580C	Transistor	2SC458C	D3035	G2090408	Diode	1SS270	R3035	J0121
Q3016	G3304580C	Transistor	2SC458C	D3036	G2060004	Diode	1SS270TJ	R3036	J0222
Q3017	G3304580C	Transistor	2SC458C	D3037	G2090408	Diode	1SS270	R3037	J0222
Q3018	G3304580C	Transistor	2SC458C	D3038	G2090408	Diode	1SS270	R3038	J0222
Q3019	G3305350B	Transistor	2SC535B	D3039	G2090408	Diode	1SS270	R3039	J0222
Q3020	G3304580C	Transistor	2SC458C	D3040	G2090408	Diode	1SS270	R3040	J0222
Q3021	G1090072	IC	uPC577H	D3041	G2090408	Diode	1SS270	R3041	J0222
Q3022	G3304580C	Transistor	2SC458C	D3042	G2090408	Diode	1SS270	R3042	J0121
Q3023	G3304580C	Transistor	2SC458C	D3043	G2090408	Diode	1SS270	R3043	J0222
Q3024	G3090079	Transistor	BA1A4P	D3044	G2090408	Diode	1SS270	R3044	J0121
Q3025	G3090079	Transistor	BA1A4P	D3045	G2090408	Diode	1SS270	R3045	J0222
Q3026	G3090079	Transistor	BA1A4P	D3046	G2090408	Diode	1SS270	R3046	J0222
Q3027	G3090079	Transistor	BA1A4P	D3047	G2090408	Diode	1SS270	R3051	J0222
Q3028	G3304580C	Transistor	2SC458C	D3048	G2090408	Diode	1SS270	R3052	J0121
Q3029	G3304580C	Transistor	2SC458C	D3049	G2090408	Diode	1SS270	R3053	J0121
Q3030	G3090074	Transistor	BA1A4M	D3050	G2090408	Diode	1SS270	R3054	J0222
Q3031	G3304580C	Transistor	2SC458C	D3051	G2090408	Diode	1SS270		
Q3032	G4800740L	FET	3SK74L	D3052	G2090408	Diode	1SS270		
Q3033	G3304580C	Transistor	2SC458C	D3054	G2090408	Diode	1SS270		
Q3034	G3304580C	Transistor	2SC458C	TH3002	G9090035	Thermistor			
Q3035	G3304580C	Transistor	2SC458C	TH3005	G9090026	Thermistor			
Q3036	G4800740L	FET	3SK74L	TH3006	G9090035	Thermistor			
Q3037	G3304580C	Transistor	2SC458C	X3001	H0102813	XTAL	HC-49/T 11.338		
Q3038	G3304580C	Transistor	2SC458C	X3002	H0102812	XTAL	HC-49/T 11.338		
Q3039	G3304580C	Transistor	2SC458C	XF3001	H1102119	XTAL Filter	13M15A		
Q3040	G3090079	Transistor	BA1A4P	XF3002	H1102073	XTAL Filter	XF-455MC		
Q3041	G3090079	Transistor	BA1A4P	CF3001	H3900382	Ceramic Filter	LF-H12S		
Q3042	G3090076	Transistor	BA1A4L	CF3002	H3900387	Ceramic Filter	LF-H8S		
				CF3003	H3900386	Ceramic Filter	CFJ455K14		
				CD3001	H7900010	Ceramic DISC.	455-D		
				R3001	J01225101	Carbon Film RES.	1/6W 100 ohm	R3044	J0121
				R3002	J02225332	Carbon Film RES.	1/6W 3.3k ohm	R3045	J0222
				R3003	J01225223	Carbon Film RES.	1/6W 22k ohm	R3046	J0222
				R3004	J02225223	Carbon Film RES.	1/6W 22k ohm	R3051	J0222
				R3005	J01225104	Carbon Film RES.	1/6W 100k ohm	R3052	J0121
				R3006	J01225102	Carbon Film	1/6W 1k ohm	R3053	J0121
								R3054	J0222

Q3043	G3090076	Transistor	BA1A4L			RES.				
Q3044	G3090076	Transistor	BA1A4L	R3007	J02225104	Carbon Film	1/6W 100k ohm		R3055	J01225
Q3045	G3090076	Transistor	BA1A4L			RES.				
Q3046	G1090101	IC	uPC1037H	R3008	J02225332	Carbon Film	1/6W 3.3k ohm		R3056	J02225
Q3047	G3090075	Transistor	BN1A4P			RES.				
Q3048	G3090075	Transistor	BN1A4P	R3009	J02225560	Carbon Film	1/6W 56 ohm		R3057	J02225
Q3049	G3802410G	FET	2SK241GR			RES.				
Q3054	G3090079	Transistor	BA1A4P	R3010	J01225223	Carbon Film	1/6W 22k ohm		R3058	J01225
Q3055	G3107331P	Transistor	2SA733AP			RES.				
Q3056	G3090079	Transistor	BA1A4P	R3011	J01225223	Carbon Film	1/6W 22k ohm		R3059	J01225
						RES.				
D3001	G2022080	Diode	1S2208	R3012	J02225223	Carbon Film	1/6W 22k ohm		R3060	J01225
D3002	G2090027	Diode	1SS53			RES.				
D3003	G2090027	Diode	1SS53			RES.				
D3004	G2090180	Diode	FC53M-5			RES.				

PARTS LIST

	J02225104	Carbon Film RES.	1/6W 100k ohm	UJ	R3061	J01225103	Carbon Film RES.	1/6W 10k ohm	PJ
	J01225104	Carbon Film RES.	1/6W 100k ohm	PJ	R3062	J01225223	Carbon Film RES.	1/6W 22k ohm	PJ
	J02225104	Carbon Film RES.	1/6W 100k ohm	UJ	R3063	J01225102	Carbon Film RES.	1/6W 1k ohm	PJ
	J01225223	Carbon Film RES.	1/6W 22k ohm	PJ	R3064	J01225223	Carbon Film RES.	1/6W 22k ohm	PJ
	J02225223	Carbon Film RES.	1/6W 22k ohm	UJ	R3065	J01225102	Carbon Film RES.	1/6W 1k ohm	PJ
	J02225560	Carbon Film RES.	1/6W 56 ohm	UJ	R3066	J01225223	Carbon Film RES.	1/6W 22k ohm	PJ
	J02225222	Carbon Film RES.	1/6W 2.2k ohm	UJ	R3067	J01225472	Carbon Film RES.	1/6W 4.7k ohm	PJ
	J01225562	Carbon Film RES.	1/6W 5.6k ohm	PJ	R3068	J02225472	Carbon Film RES.	1/6W 4.7k ohm	UJ
	J02225223	Carbon Film RES.	1/6W 22k ohm	UJ	R3069	J01225682	Carbon Film RES.	1/6W 6.8k ohm	PJ
	J02225221	Carbon Film RES.	1/6W 220 ohm	UJ	R3070	J01225682	Carbon Film RES.	1/6W 6.8k ohm	PJ
	J01225560	Carbon Film RES.	1/6W 56 ohm	PJ	R3071	J02225332	Carbon Film RES.	1/6W 3.3k ohm	UJ
	J01225222	Carbon Film RES.	1/6W 2.2k ohm	PJ	R3072	J01225682	Carbon Film	1/6W 6.8k ohm	PJ

55		RES.						RES.			
70		Carbon Film	1/6W	56 ohm	UJ	R3073	J01225223	Carbon Film	1/6W	22k ohm	PJ
70		RES.						RES.			
70TJ		Carbon Film	1/6W	4.7k ohm	PJ	R3074	J02225103	Carbon Film	1/6W	10k ohm	UJ
70		RES.						RES.			
70		Carbon Film	1/6W	4.7k ohm	UJ	R3075	J02225470	Carbon Film	1/6W	47 ohm	UJ
70		RES.						RES.			
70		Carbon Film	1/6W	6.8k ohm	PJ	R3076	J01225473	Carbon Film	1/6W	47k ohm	PJ
70		RES.						RES.			
70		Carbon Film	1/6W	3.3k ohm	UJ	R3077	J02225101	Carbon Film	1/6W	100 ohm	UJ
70		RES.						RES.			
70		Carbon Film	1/6W	4.7k ohm	UJ	R3078	J02225224	Carbon Film	1/6W	220k ohm	UJ
70		RES.						RES.			
70		Carbon Film	1/6W	47k ohm	UJ	R3079	J01225101	Carbon Film	1/6W	100 ohm	PJ
70		RES.						RES.			
70		Carbon Film	1/6W	47k ohm	UJ	R3080	J02225102	Carbon Film	1/6W	1k ohm	UJ
70		RES.						RES.			
70		Carbon Film	1/6W	470 ohm	PJ	R3082	J01225102	Carbon Film	1/6W	1k ohm	PJ
70		RES.						RES.			
70		Carbon Film	1/6W	56 ohm	PJ	R3084	J02225333	Carbon Film	1/6W	33k ohm	UJ
70		RES.						RES.			
70		Carbon Film	1/6W	2.2k ohm	UJ	R3085	J01225560	Carbon Film	1/6W	56 ohm	PJ
70		RES.						RES.			
70		Carbon Film	1/6W	220k ohm	PJ	R3086	J02225103	Carbon Film	1/6W	10k ohm	UJ
70		RES.						RES.			
70		Carbon Film	1/6W	2.2k ohm	UJ	R3087	J02225123	Carbon Film	1/6W	12k ohm	UJ
70		RES.						RES.			
70		Carbon Film	1/6W	1k ohm	UJ	R3088	J02225103	Carbon Film	1/6W	10k ohm	UJ
70		RES.						RES.			
70		Carbon Film	1/6W	15k ohm	UJ	R3089	J01225103	Carbon Film	1/6W	10k ohm	PJ
70		RES.						RES.			
70		Carbon Film	1/6W	15k ohm	UJ	R3091	J02225332	Carbon Film	1/6W	3.3k ohm	UJ
70		RES.						RES.			
70		Carbon Film	1/6W	100 ohm	PJ	R3092	J01225104	Carbon Film	1/6W	100k ohm	PJ
70		RES.						RES.			
70		Carbon Film	1/6W	10k ohm	UJ	R3093	J01225102	Carbon Film	1/6W	1k ohm	PJ
70		RES.						RES.			
70		Carbon Film	1/6W	1k ohm	PJ	R3094	J01225224	Carbon Film	1/6W	220k ohm	PJ
70		RES.						RES.			
70		Carbon Film	1/6W	10k ohm	UJ	R3095	J02225104	Carbon Film	1/6W	100k ohm	UJ
70		RES.						RES.			
70		Carbon Film	1/6W	100 ohm	UJ	R3096	J02225101	Carbon Film	1/6W	100 ohm	UJ
70		RES.						RES.			
70		Carbon Film	1/6W	330k ohm	UJ	R3097	J02225102	Carbon Film	1/6W	1k ohm	UJ
70		RES.						RES.			
70		Carbon Film	1/6W	100k ohm	PJ	R3099	J02225103	Carbon Film	1/6W	10k ohm	UJ
70		RES.						RES.			
70		Carbon Film	1/6W	4.7k ohm	PJ	R3100	J02225104	Carbon Film	1/6W	100k ohm	UJ
70		RES.						RES.			
70		Carbon Film	1/6W	220k ohm	UJ	R3101	J02225332	Carbon Film	1/6W	3.3k ohm	UJ
70		RES.						RES.			
70		Carbon Film	1/6W	10k ohm	PJ	R3102	J02225104	Carbon Film	1/6W	100k ohm	UJ
70		RES.						RES.			
70		Carbon Film	1/6W	100 ohm	UJ	R3103	J01225332	Carbon Film	1/6W	3.3k ohm	PJ
70		RES.						RES.			
70		Carbon Film	1/6W	220k ohm	UJ	R3105	J02225101	Carbon Film	1/6W	100 ohm	UJ
70		RES.						RES.			
70		Carbon Film	1/6W	5.6k ohm	PJ	R3108	J02225222	Carbon Film	1/6W	2.2k ohm	UJ
70		RES.						RES.			
70		Carbon Film	1/6W	1k ohm	PJ	R3109	J01225221	Carbon Film	1/6W	220 ohm	PJ
70		RES.						RES.			
70		Carbon Film	1/6W	22k ohm	PJ	R3110	J02225472	Carbon Film	1/6W	4.7k ohm	...
70		RES.						RES.			

RES.				RES.	1/6W 2.2k ohm	UJ
------	--	--	--	------	---------------	----

PARTS LIST

R3111	J02225102	Carbon Film RES.	1/6W 1k ohm	UJ	R3157	J02225223	Carbon Film RES.	1/6W 22k ohm	C3042	K1317
R3112	J02225334	Carbon Film RES.	1/6W 330k ohm	UJ	R3159	J01225333	Carbon Film RES.	1/6W 33k ohm	C3044	K1317
R3113	J02225104	Carbon Film RES.	1/6W 100k ohm	UJ	R3160	J01225222	Carbon Film RES.	1/6W 2.2k ohm	C3047	K0017
R3114	J02225473	Carbon Film RES.	1/6W 47k ohm	UJ	R3161	J01225221	Carbon Film RES.	1/6W 220 ohm	C3048	K0017
R3115	J02225222	Carbon Film RES.	1/6W 2.2k ohm	UJ	R3162	J02225331	Carbon Film RES.	1/6W 330 ohm	C3049	K1217
R3116	J01225223	Carbon Film RES.	1/6W 22k ohm	PJ	R3163	J01225223	Carbon Film RES.	1/6W 22k ohm	C3050	K1217
R3117	J02225334	Carbon Film RES.	1/6W 330k ohm	UJ	R3164	J01225223	Carbon Film RES.	1/6W 22k ohm	C3051	K1317
R3118	J01225152	Carbon Film RES.	1/6W 1.5k ohm	PJ	R3168	J02225104	Carbon Film RES.	1/6W 100k ohm	C3052	K4017
R3119	J02225560	Carbon Film RES.	1/6W 56 ohm	UJ	R3169	J02225473	Carbon Film RES.	1/6W 47k ohm	C3053	K1317
R3120	J02225474	Carbon Film RES.	1/6W 470k ohm	UJ	R3170	J01225101	Carbon Film RES.	1/6W 100 ohm	C3054	K1914
R3121	J02225152	Carbon Film RES.	1/6W 1.5k ohm	UJ	R3172	J01225153	Carbon Film RES.	1/6W 15k ohm	C3055	K1914
R3122	J02225222	Carbon Film RES.	1/6W 2.2k ohm	UJ	R3173	J01225102	Carbon Film RES.	1/6W 1k ohm	C3056	K1914
R3123	J02225474	Carbon Film RES.	1/6W 470k ohm	UJ	R3174	J24205561	RES. Chip	1/10W 560 ohm	C3057	K1914
R3124	J02225104	Carbon Film RES.	1/6W 100k ohm	UJ	R3175	J24205223	RES. Chip	1/10W 22k ohm	C3058	K1914
R3125	J01225103	Carbon Film RES.	1/6W 10k ohm	PJ	R3176	J02225472	Carbon Film RES.	1/6W 4.7k ohm	C3059	K1914
R3126	J02225472	Carbon Film RES.	1/6W 4.7k ohm	UJ	R3177	J01225222	Carbon Film RES.	1/6W 2.2k ohm	C3060	K1914
R3127	J02225104	Carbon Film RES.	1/6W 100k ohm	UJ					C3061	K1914
R3128	J02225473	Carbon Film	1/6W 47k ohm	UJ	VR3001	J51745472	POT.	B 4.7k ohm	C3062	K1914
					VR3002	J51745104	POT.	B 100k ohm	C3063	K1914
					VR3003	J51745103	POT.	B 10k ohm	C3064	K1217
					VR3004	J51745103	POT.	B 10k ohm	C3065	K1317
									C3066	K1914
									C3067	K1217
									C3068	K1914
									C3069	K7010
									C3070	K1914
									C3072	K1317
									C3073	K1914
									C3074	K1914
									C3075	K1914
									C3076	K1914
									C3077	K1914
									C3080	K4012

R3129	J02225334	RES. Carbon Film	1/6W 330k ohm	UJ	VR3005	J51745103	POT.	B	10k ohm	C3081	K13179
		RES.			VR3006	J51745473	POT.	B	47k ohm	C3082	K19149
R3131	J01225272	Carbon Film	1/6W 2.7k ohm	PJ	VR3007	J51745103	POT.	B	10k ohm	C3083	K12171
		RES.			VR3008	J51745102	POT.	B	1k ohm	C3084	K40179
R3132	J01225223	Carbon Film	1/6W 22k ohm	PJ	VR3009	J51745223	POT.	B	22k ohm		
		RES.			VR3010	J51745104	POT.	B	100k ohm	C3085	K19149
R3133	J02225334	Carbon Film	1/6W 330k ohm	UJ	VR3011	J51745103	POT.	B	10k ohm	C3087	K19149
		RES.			VR3012	J51745102	POT.	B	1k ohm	C3089	K19149
R3134	J02225152	Carbon Film	1/6W 1.5k ohm	UJ						C3090	K40179
		RES.			C3001	K13179008	Ceramic CAP.	F	50VV		
R3135	J01225560	Carbon Film	1/6W 56 ohm	PJ	C3002	K40109001	AL. Electro. CAP.		10WV	C3091	K19149
		RES.			C3003	K05175151	Ceramic CAP.	RH	50WV	C3093	K19149
R3136	J02225224	Carbon Film	1/6W 220k ohm	UJ	C3004	K05175151	Ceramic CAP.	RH	50WV	C3094	K19149
		RES.			C3005	K05175220	Ceramic CAP.	RH	50WV	C3095	K10179
R3137	J02225222	Carbon Film	1/6W 2.2k ohm	UJ	C3006	K05173100	Ceramic CAP.	RH	50WV	C3096	K12171
		RES.			C3007	K13179008	Ceramic CAP.	F	50WV	C3097	K19149
R3138	J02225101	Carbon Film	1/6W 100 ohm	UJ	C3008	K00175150	Ceramic CAP.	SL	50WV	C3098	K00175
		RES.			C3009	K13179008	Ceramic CAP.	F	50WV	C3099	K40179
R3139	J02225103	Carbon Film	1/6W 10k ohm	UJ	C3010	K00175180	Ceramic CAP.	SL	50WV	C3100	K19149
		RES.			C3011	K13179010	Ceramic CAP.	F	50WV	C3101	K40179
R3140	J02225335	Carbon Film	1/6W 3.3M ohm	UJ	C3012	K13179008	Ceramic CAP.	F	50WV		
		RES.			C3013	K13179010	Ceramic CAP.	F	50WV	C3103	K19149
R3141	J02225472	Carbon Film	1/6W 4.7k ohm	UJ	C3014	K12171102	Ceramic CAP.	E	50WV	C3104	K40109
		RES.			C3015	K05173080	Ceramic CAP.	RH	50WV		
R3142	J02225102	Carbon Film	1/6W 1k ohm	UJ	C3016	K13179008	Ceramic CAP.	F	50WV	C3105	K40179
		RES.			C3018	K12171102	Ceramic CAP.	E	50WV		
R3143	J01225153	Carbon Film	1/6W 15k ohm	PJ	C3019	K05175151	Ceramic CAP.	RH	50WV	C3106	K19149
		RES.			C3020	K13179008	Ceramic CAP.	F	50WV	C3110	K19149
R3144	J02225222	Carbon Film	1/6W 2.2k ohm	UJ	C3021	K05172050	Ceramic CAP.	RH	50WV	C3111	K00173
		RES.			C3022	K05175151	Ceramic CAP.	RH	50WV	C3112	K19149
R3145	J02225560	Carbon Film	1/6W 56 ohm	UJ	C3023	K13179010	Ceramic CAP.	F	50WV	C3113	K19149
		RES.			C3024	K13179010	Ceramic CAP.	F	50WV	C3114	K19149
R3146	J02225223	Carbon Film	1/6W 22k ohm	UJ	C3025	K00172040	Ceramic CAP.	SL	50WV	C3115	K13179
		RES.			C3026	K12171102	Ceramic CAP.	E	50WV	C3116	K40179
R3147	J01225223	Carbon Film	1/6W 22k ohm	PJ	C3027	K00173090	Ceramic CAP.	SL	50WV		
		RES.			C3028	K13179010	Ceramic CAP.	F	50WV	C3117	K19149
R3148	J01225223	Carbon Film	1/6W 22k ohm	PJ	C3029	K40129004	AL. Electro. CAP.		16WV	C3118	K00175
		RES.								C3119	K51176
R3149	J01225560	Carbon Film	1/6W 56 ohm	PJ	C3030	K13179008	Ceramic CAP.	F	50WV	C3120	K51176
		RES.			C3031	K13179008	Ceramic CAP.	F	50WV	C3121	K00175
R3151	J02225471	Carbon Film	1/6W 470 ohm	UJ	C3032	K13179008	Ceramic CAP.	F	50WV	C3122	K13179
		RES.			C3033	K13179008	Ceramic CAP.	F	50WV	C3123	K13179
R3152	J02225473	Carbon Film	1/6W 47k ohm	UJ	C3034	K40129004	AL. Electro. CAP.		16WV	C3124	K19149
		RES.								C3125	K00173
R3154	J02225104	Carbon Film	1/6W 100k ohm	UJ	C3035	K00173070	Ceramic CAP.	SL	50WV	C3126	K19149
		RES.			C3036	K00173070	Ceramic CAP.	SL	50WV	C3127	K00175
R3155	J02225104	Carbon Film	1/6W 100k ohm	UJ	C3037	K13179008	Ceramic CAP.	F	50WV	C3128	K19149
		RES.			C3038	K19149021	Ceramic CAP.		25WV	C3129	K13179
R3156	J02225472	Carbon Film	1/6W 4.7k ohm	UJ	C3039	K12171102	Ceramic CAP.	E	50WV	C3130	K19149
		RES.			C3040	K13179010	Ceramic CAP.	F	50WV	C3131	K19149
					C3041	K13179010	Ceramic CAP.	F	50WV	C3032	K70147

PARTS LIST

22k ohm	UJ	K13179010	Ceramic CAP.	F	50WV	0.022uF	C3133	K70107106	Tantalum CAP.		10WV	10uF
		K13179010	Ceramic CAP.	F	50WV	0.022uF	C3134	K40109001	AL. Electro. CAP.		10WV	100uF
33k ohm	PJ	K00173100	Ceramic CAP.	SL	50WV	10pF						
		K00175331	Ceramic CAP.	SL	50WV	330pF	C3135	K19149021	Ceramic CAP.		25WV	0.047uF
2.2k ohm	PJ	K12171102	Ceramic CAP.	F	50WV	0.001uF	C3136	K13179010	Ceramic CAP.	F	50WV	0.022uF
		K12171102	Ceramic CAP.	F	50WV	0.001uF	C3137	K40129004	AL. Electro. CAP.		16WV	10uF
230 ohm	PJ	K13179010	Ceramic CAP.	F	50WV	0.022uF						
		K40179013	AL. Electro. CAP.		50WV	1uF	C3138	K12171102	Ceramic CAP.	E	50WV	0.001uF
330 ohm	UJ						C3139	K40179013	AL. Electro. CAP.		50WV	1uF
		K13179008	Ceramic CAP.	F	50WV	0.01uF						
22k ohm	PJ	K19149025	Ceramic CAP.		25WV	0.1uF	C3140	K13179008	Ceramic CAP.	F	50WV	0.01uF
		K19149025	Ceramic CAP.		25WV	0.1uF	C3141	K13179010	Ceramic CAP.	F	50WV	0.022uF
22k ohm	PJ	K19149025	Ceramic CAP.		25WV	0.1uF	C3142	K12171102	Ceramic CAP.	E	50WV	0.001uF
		K19149025	Ceramic CAP.		25WV	0.1uF	C3144	K40129004	AL. Electro. CAP.		16WV	10uF
100k ohm	UJ	K19149025	Ceramic CAP.		25WV	0.1uF						
		K19149025	Ceramic CAP.		25WV	0.1uF	C3145	K70147105	Tantalum CAP.		25WV	1uF
47k ohm	UJ	K19149025	Ceramic CAP.		25WV	0.1uF	C3147	K12171102	Ceramic CAP.	E	50WV	0.001uF
		K19149025	Ceramic CAP.		25WV	0.1uF	C3150	K70107106	Tantalum CAP.		10WV	10uF
100 ohm	PJ	K19149013	Ceramic CAP.		25WV	0.01uF	C3152	K40179016	AL. Electro. CAP.		50WV	0.1uF
		K19149013	Ceramic CAP.		25WV	0.01uF						
15k ohm	PJ	K12171102	Ceramic CAP.	E	50WV	0.001uF	C3153	K40129004	AL. Electro. CAP.		16WV	10uF
		K13179008	Ceramic CAP.	F	50WV	0.01uF						
1k ohm	PJ	K19149021	Ceramic CAP.		25WV	0.047uF	C3154	K40179013	AL. Electro. CAP.		50WV	1uF
		K12171102	Ceramic CAP.	E	50WV	0.001uF						
560 ohm		K19149022	Ceramic CAP.		25WV	0.047uF	C3156	K13179008	Ceramic CAP.	F	50WV	0.01uF
22k ohm		K70107106	Tantalum CAP.		10WV	10uF	C3157	K13179008	Ceramic CAP.	F	50WV	0.01uF
4.7k ohm	UJ	K19149021	Ceramic CAP.		25WV	0.047uF	C3158	K00175101	Ceramic CAP.	SL	50WV	100pF
		K13179008	Ceramic CAP.	F	50WV	0.01uF	C3159	K00175331	Ceramic CAP.	SL	50WV	330pF
2.2k ohm	PJ	K19149021	Ceramic CAP.		25WV	0.047uF	C3160	K00175101	Ceramic CAP.	SL	50WV	100pF
		K19149021	Ceramic CAP.		25WV	0.047uF	C3161	K40149001	AL. Electro. CAP.		25WV	4.7uF
		K19149021	Ceramic CAP.		25WV	0.047uF						
4.7k ohm		K19149021	Ceramic CAP.		25WV	0.047uF	C3162	K70107226	Tantalum CAP.		10WV	22uF
100k ohm		K19149013	Ceramic CAP.		25WV	0.01uF	C3163	K13179008	Ceramic CAP.	F	50WV	0.01uF
10k ohm		K40129004	AL. Electro. CAP.		16WV	10uF	C3164	K40179013	AL. Electro. CAP.		50WV	1uF
10k ohm		K13179008	Ceramic CAP.	F	50WV	0.01uF						
47k ohm		K19149013	Ceramic CAP.		25WV	0.01uF	C3166	K12171102	Ceramic CAP.	E	50WV	0.001uF
10k ohm		K12171102	Ceramic CAP.	E	50WV	0.001uF	C3167	K19149009	Ceramic CAP.		25WV	0.0047uF
1k ohm		K40179016	AL. Electro. CAP.		50WV	0.1uF	C3168	K19149021	Ceramic CAP.		25WV	0.0047uF
22k ohm												
100k ohm		K19149025	Ceramic CAP.		25WV	0.1uF	T3001	L0021533	Coil			
10k ohm		K19149021	Ceramic CAP.		25WV	0.047uF	T3002	L0021735	Coil			
1k ohm		K19149017	Ceramic CAP.		25WV	0.022uF	T3003	L0021735	Coil			
		K40179013	AL. Electro. CAP.		50WV	1uF	T3004	L0021736	Coil			
							T3005	L0021737	Coil			
50WV 0.01uF							T3006	L0021736	Coil			
10WV 100uF		K19149021	Ceramic CAP.		25WV	0.047uF	T3007	L0021736	Coil			
		K19149009	Ceramic CAP.		25WV	0.0047uF	T3009	L0190002	Coil			

50WV	150pF	K10179024	Ceramic CAP.	B	50WV	0.01uF	T3010	L0021469	Coil	
50WV	150pF	K10179024	Ceramic CAP.	B	50WV	0.01uF	T3011	L0190002	Coil	
50WV	22pF	K11171102	Ceramic CAP.	E	50WV	0.001uF	T3012	L0190094	Coil	
50WV	10pF	K19149021	Ceramic CAP.		25WV	0.047uF	T3013	L0190094	Coil	
50WV	0.01uF	K00175101	Ceramic CAP.	SL	50WV	100pF	T3014	L0190094	Coil	
50WV	15pF	K40179013	AL. Electro. CAP.		50WV	1uF				
50WV	0.01uF						L3001	L0021257	Coil	
50WV	18pF	K19149021	Ceramic CAP.		25WV	0.047uF	L3002	L0021257	Coil	
50WV	0.022uF	K40179013	AL. Electro. CAP.		50WV	1uF	L3003	L1190270	M.RFC	100uH
50WV	0.01uF						L3004	L1190270	M.RFC	100uH
50WV	0.022uF	K19149025	Ceramic CAP.		25WV	0.1uF	L3005	L1190189	M.RFC	1mH
50WV	0.001uF	K40109001	AL. Electro. CAP.		10WV	100uF	L3006	L1190189	M.RFC	1mH
50WV	8pF						L3007	L1190189	M.RFC	1mH
50WV	0.01uF	K40179016	AL. Electro. CAP.		50WV	0.1uF	L3008	L1190189	M.RFC	1mH
50WV	0.001uF						L3009	L1190040	M.RFC	1mH
50WV	150pF	K19149021	Ceramic CAP.		25WV	0.047uF	L3010	L1190040	M.RFC	1mH
50WV	0.01uF	K19149021	Ceramic CAP.		25WV	0.047uF	L3011	L0021610	Coil	250uH
50WV	5pF	K00173100	Ceramic CAP.	SL	50WV	10pF	L3012	L1190189	M.RFC	1mH
50WV	150pF	K19149021	Ceramic CAP.		25WV	0.047uF	L3013	L1190266	M.RFC	47uH
50WV	0.022uF	K19149021	Ceramic CAP.		25WV	0.047uF	L3014	L1190189	M.RFC	1mH
50WV	0.022uF	K19149021	Ceramic CAP.		25WV	0.047uF	L3015	L1190189	M.RFC	1mH
50WV	4pF	K13179008	Ceramic CAP.	F	50WV	0.01uF				
50WV	0.001uF	K40179004	AL. Electro. CAP.		16WV	10uF	J3001	P0090524	Connector	
50WV	5pF						J3002	P0090525	Connector	
50WV	0.022uF	K19149021	Ceramic CAP.		25WV	0.047uF	J3003	P0090525	Connector	
16WV	10uF	K00175270	Ceramic CAP.	SL	50WV	27pF	J3004	P0090525	Connector	
		K31178102	Styrol CAP.		50WV	0.001uF	J3005	P0090526	Connector	
50WV	0.01uF	K51178102	Styrol CAP.		50WV	0.001uF	J3006	P0090525	Connector	
50WV	0.01uF	K00175101	Ceramic CAP.	SL	50WV	100pF	J3007	P0090525	Connector	
50WV	0.01uF	K13179008	Ceramic CAP.	F	50WV	0.01uF	J3008	P0090525	Connector	
50WV	0.01uF	K13179008	Ceramic CAP.	F	50WV	0.01uF	J3009	P0090528	Connector	
16WV	10uF	K19149013	Ceramic CAP.		25WV	0.01uF	J3010	P0090524	Connector	
		K00173100	Ceramic CAP.	SL	50WV	10pF	J3011	P0090525	Connector	
50WV	7pF	K19149021	Ceramic CAP.		25WV	0.047uF	J3012	P0090527	Connector	
50WV	7pF	K00175101	Ceramic CAP.	SL	50WV	100pF	J3013	P0090527	Connector	
50WV	0.01uF	K19149021	Ceramic CAP.		25WV	0.047uF	J3014	P0090524	Connector	
25WV	0.047uF	K13179008	Ceramic CAP.	F	50WV	0.01uF	J3015	P0090528	Connector	
50WV	0.001uF	K19149021	Ceramic CAP.		25WV	0.047uF	J3016	P0090524	Connector	
50WV	0.022uF	K19149021	Ceramic CAP.		25WV	0.047uF	J3017	P0090554	Connector (CAT)	
50WV	0.022uF	K70147155	Tantalum CAP.		25WV	1.5uF	J3018	P0090553	Connector (STBY)	

J3019	P1090565	Connector (KEY)	
J3020	P1090350	Connector (EXT SPKR)	
J3021	P1090296	Connector (PTT)	
J3022	P1090546	Connector (DATA IN/OUT)	
J3023	P0090352	Connector	
	R0121120	Shield Case	
	R0121130	Shield Cover	
	R0121140A	Shield Plate	
	R0125620	Holder	
AF LPT UNIT			
Symbol No.	Part No.	Description	Device
	F2892101	Printed Circuit Board	
	C028921AA	PCB with Components	
Q9001	G3327127G	Transistor	2SC2712GR-TE85R
Q9002	G3070007	Transistor	FA1F4N-T2B
Q9003	G3327127G	Transistor	2SC2712GR-TE85R
Q9004	G3070007	Transistor	FA1F4N-T2B
Q9005	G3327127G	Transistor	2SC2712GR-TE85R
R9001	J24205104	RES. Chip.	1/10W 100k ohm
R9002	J24205334	RES. Chip.	1/10W 330k ohm
R9003	J24205101	RES. Chip.	1/10W 100 ohm
R9004	J24205472	RES. Chip.	1/10W 4.7k ohm
R9005	J24205104	RES. Chip.	1/10W 100k ohm
R9006	J24205104	RES. Chip.	1/10W 100k ohm
R9007	J24205103	RES. Chip.	1/10W 10k ohm
R9008	J24205103	RES. Chip.	1/10W 10k ohm
R9009	J24205472	RES. Chip.	1/10W 4.7k ohm
R9010	J24205472	RES. Chip.	1/10W 4.7k ohm
R9011	J24205101	RES. Chip.	1/10W 100 ohm
R9012	J24205102	RES. Chip.	1/10W 1k ohm
R9013	J24205472	RES. Chip.	1/10W 4.7k ohm
C9001	K22141809	CAP. Chip.	25WV 0.1uF
C9002	K22170817	CAP. Chip.	B 50WV 0.01uF
C9003	K22170809	CAP. Chip.	B 50WV 0.0022uF
C9004	K22141809	CAP. Chip.	B 25WV 0.1uF
C9005	K22170805	CAP. Chip.	B 50WV 0.001uF
C9006	K22141809	CAP. Chip.	25WV 0.1uF
C9007	K78120009	Tantalum CAP. Chip.	16WV 1uF
	Q5000057	Lead Frame	
FM SCAN UNIT			
Symbol No.	Part No.	Description	Device
	F2892103	Printed Circuit Board	
	C028923AA	PCB with Components	

	C028926AA	PCB with Components	
Q9301	G1090559	IC	LA6324M
D9301	G2070009	Diode	1SS184 TE85R
D9302	G2070003	Diode	1SS226 TE85R
R9301	J24205474	RES. Chip.	1/10W 470k ohm
R9302	J24205103	RES. Chip.	1/10W 10k ohm
R9303	J24205153	RES. Chip.	1/10W 15k ohm
R9304	J24205153	RES. Chip.	1/10W 15k ohm
R9305	J24205223	RES. Chip.	1/10W 22k ohm
R9306	J24205104	RES. Chip.	1/10W 100k ohm
R9307	J24205104	RES. Chip.	1/10W 100k ohm
R9308	J24205105	RES. Chip.	1/10W 1M ohm
R9309	J24205473	RES. Chip.	1/10W 47k ohm
R9310	J24205103	RES. Chip.	1/10W 10k ohm
R9311	J24205124	RES. Chip.	1/10W 120k ohm
	Q5000057	Lead Frame	
13MHz RX PLL UNIT			
Symbol No.	Part No.	Description	Device
	F2892109A	Printed Circuit Board	
	C028929AA	PCB with Components	
Q9801	G1090739	IC	MC145163SL
Q9802	G3326197B	Transistor	2SC2619FBTR
Q9803	G3326197B	Transistor	2SC2619FBTR
R9801	J24205102	RES. Chip.	1/10W 1k ohm
R9802	J24205332	RES. Chip.	1/10W 3.3k ohm
R9803	J24205104	RES. Chip.	1/10W 100k ohm
R9804	J24205102	RES. Chip.	1/10W 1k ohm
R9805	J24205472	RES. Chip.	1/10W 4.7k ohm
R9806	J24205103	RES. Chip.	1/10W 10k ohm
R9807	J24205102	RES. Chip.	1/10W 1k ohm
R9808	J24205104	RES. Chip.	1/10W 100k ohm
C9801	K22170817	CAP. Chip.	B 50WV 1uF
C9802	K22170817	CAP. Chip.	B 50WV 1uF
C9803	K22170817	CAP. Chip.	B 50WV 1uF
C9804	K22170206	CAP. Chip.	CH 50WV 1uF
C9805	K22170817	CAP. Chip.	B 50WV 1uF
C9806	K22170817	CAP. Chip.	B 50WV 1uF
	Q5000057	Lead Frame	
TX UNIT			
Symbol No.	Part No.	Description	Device
	F2887102A	Printed Circuit Board	
	C028872AA	PCB with Components	

Q4019	G3304600B
Q4020	G1090101
Q4021	G3304600B
Q4022	G4800740L
Q4023	G3304580C
Q4024	G3801921G
Q4025	G3107331Q
Q4026	G1090278
Q4027	G1090282
Q4028	G3090074
Q4029	G3090075
Q4030	G3115280
Q4031	G3090075
Q4032	G3304580C
Q4033	G3115280
Q4034	G3304580C
Q4035	G3115280
Q4036	G3304600B
Q4037	G3304580C
Q4038	G3090080
Q4039	G3090080
Q4040	G3090079
D4001	G2022080
D4002	G2022080
D4003	G2090408
D4004	G2090408
D4005	G2090382
D4006	G2090408
D4007	G2090408
D4008	G2090408
D4009	G2090027
D4010	G2090027
D4011	G2015880
D4012	G2015880
D4013	G2090381
D4014	G2090408
D4015	G2090200
D4016	G9090007
D4017	G2090408
D4018	G2090408
D4019	G2090408
D4020	G2090383
D4021	G2090408
D4022	G2090408
D4023	G2090408
TH4002	G9090001
X4001	H0102815
X4002	H9500100
XF4001	H1102123
XF4002	H1102123
XF4003	H1102120
CF4001	H3900393
R4001	J01225104
R4002	J02225103

Q9401	G1090559	IC	LA6324M
Q9402	G3070001	Transistor	FA1A4M
Q9403	G3070001	Transistor	FA1A4M
D9401	G2070009	Diode	1SS184 TE85R
R9401	J24205334	RES. Chip.	1/10W 330k ohm
R9402	J24205473	RES. Chip.	1/10W 47k ohm
R9403	J24205473	RES. Chip.	1/10W 47k ohm
R9404	J24205105	RES. Chip.	1/10W 1M ohm
R9405	J24205104	RES. Chip.	1/10W 100k ohm
R9406	J24205473	RES. Chip.	1/10W 47k ohm
R9407	J24205472	RES. Chip.	1/10W 4.7k ohm
R9408	J24205472	RES. Chip.	1/10W 4.7k ohm
R9409	J24205223	RES. Chip.	1/10W 22k ohm
R9411	J24205000	RES. Chip.	1/10W 0 ohm
C9401	K22171004	CAP. Chip.	F 50WV 0.01uF
	Q5000057	Lead Frame	
SSB SCAN UNIT			
Symbol No.	Part No.	Description	Device
	F2892106	Printed Circuit Board	

		UNIT, 13MHz-TX-PLL UNIT	
	C028872AB	PCB with Components w/VOX AMP UNIT, 13MHz-TX-PLL UNIT	
Q4001	G3305350B	Transistor	2SC535B
Q4002	G3318150G	Transistor	2SC1815GR
Q4003	G1090646	IC	LA6324
Q4004	G3090079	Transistor	BA1A4P
Q4005	G3090077	Transistor	BA1L3Z
Q4006	G3304580C	Transistor	2SC458C
Q4007	G3304580C	Transistor	2SC458C
Q4008	G3090079	Transistor	BA1A4P
Q4009	G3304600B	Transistor	2SC460B
Q4010	G4800740L	FET	3SK74L
Q4011	G1090606	IC	LA6358
Q4013	G3304600B	Transistor	2SC460B
Q4014	G3304600B	Transistor	2SC460B
G4015	G1090101	IC	uPC1037H
G4016	G1090101	IC	uPC1037H
Q4017	G3304600B	Transistor	2SC460B
Q4018	G3304580C	Transistor	2SC458C

R4004	J02225333
R4005	J02225473
R4006	J01225223
R4007	J02225102
R4008	J02225223
R4009	J02225101
R4010	J02225102
R4011	J02225154
R4012	J02225221
R4013	J02225334
R4014	J02225103
R4015	J02225101
R4016	J02225472
R4017	J02225474
R4018	J02225473
R4019	J02225682
R4020	J02225684
R4021	J02225682
R4022	J02225473
R4023	J02225103
R4024	J02225513
R4025	J02225513
R4026	J02225225
R4027	J02225183
R4028	J01225183
R4029	J01225225
R4030	J01225472

PARTS LIST

R4031	J02225332	Carbon Film RES.	1/6W 3.3k ohm	UJ
R4032	J02225103	Carbon Film RES.	1/6W 10k ohm	UJ
R4033	J01225153	Carbon Film RES.	1/6W 15k ohm	PJ
R4034	J01225103	Carbon Film RES.	1/6W 10k ohm	PJ
R4035	J01225104	Carbon Film RES.	1/6W 100k ohm	PJ
R4036	J01225101	Carbon Film RES.	1/6W 100 ohm	PJ
R4037	J02225224	Carbon Film RES.	1/6W 220k ohm	UJ
R4038	J02225222	Carbon Film RES.	1/6W 2.2k ohm	UJ
R4039	J01225221	Carbon Film RES.	1/6W 220 ohm	PJ
R4040	J02225474	Carbon Film RES.	1/6W 470k ohm	UJ
G3304600B	Transistor	2SC460B		
G1090101	IC	uPC1037H		
G3304600B	Transistor	2SC460B		
G4800740L	FET	3SK74L		
G3304580C	Transistor	2SC458C		
G3801921G	FET	2SK192AGR		
G3107331Q	Transistor	2SA733AQ		
G1090278	IC	uPD4001BC		
G1090282	IC	uPD4011BC		
G3090074	Transistor	BA1A4M		

G3090075	Transistor	BN1A4P	R4041	J02225102	Carbon Film RES.	1/6W	1k ohm	UJ
G3115280	Transistor	2SA1528	R4042	J02225104	Carbon Film RES.	1/6W	100k ohm	UJ
G3090075	Transistor	BN1A4P	R4043	J02225332	Carbon Film RES.	1/6W	3.3k ohm	UJ
G3304580C	Transistor	2SC458C	R4044	J02225273	Carbon Film RES.	1/6W	27k ohm	UJ
G3115280	Transistor	2SA1528	R4045	J01225104	Carbon Film RES.	1/6W	100k ohm	PJ
G3304580C	Transistor	2SC458C	R4046	J02225223	Carbon Film RES.	1/6W	22k ohm	UJ
G3115280	Transistor	2SA1528	R4047	J02225223	Carbon Film RES.	1/6W	22k ohm	UJ
G3304600B	Transistor	2SC460B	R4048	J02225103	Carbon Film RES.	1/6W	10k ohm	UJ
G3304580C	Transistor	2SC458C	R4049	J02225101	Carbon Film RES.	1/6W	100 ohm	UJ
G3090080	Transistor	BA1L4M	R4050	J01225223	Carbon Film RES.	1/6W	22k ohm	PJ
G3090080	Transistor	BA1L4M	R4051	J01225474	Carbon Film RES.	1/6W	470k ohm	PJ
G3090079	Transistor	BA1A4P	R4052	J02225223	Carbon Film RES.	1/6W	22k ohm	UJ
			R4053	J01225223	Carbon Film RES.	1/6W	22k ohm	PJ
G2022080	Diode	1S2208	R4054	J02225223	Carbon Film RES.	1/6W	22k ohm	UJ
G2022080	Diode	1S2208	R4055	J02225225	Carbon Film RES.	1/6W	2.2M ohm	UJ
G2090408	Diode	1SS270	R4056	J02225472	Carbon Film RES.	1/6W	4.7k ohm	UJ
G2090408	Diode	1SS270	R4057	J02225332	Carbon Film RES.	1/6W	3.3k ohm	UJ
G2090382	Diode	MC931	R4058	J02225102	Carbon Film RES.	1/6W	1k ohm	UJ
G2090408	Diode	1SS270	R4062	J02225562	Carbon Film RES.	1/6W	5.6k ohm	UJ
G2090408	Diode	1SS270	R4063	J02225562	Carbon Film RES.	1/6W	5.6k ohm	UJ
G2090408	Diode	1SS270	R4064	J02225562	Carbon Film RES.	1/6W	5.6k ohm	UJ
G2090027	Diode	1SS53	R4065	J01225223	Carbon Film RES.	1/6W	22k ohm	PJ
G2090027	Diode	1SS53	R4066	J02225223	Carbon Film RES.	1/6W	22k ohm	UJ
G2015880	Diode	1S1588	R4067	J01225560	Carbon Film RES.	1/6W	56 ohm	PJ
G2015880	Diode	1S1588	R4068	J02225102	Carbon Film RES.	1/6W	1k ohm	UJ
G2090381	Diode	MC921	R4069	J02225102	Carbon Film RES.	1/6W	1k ohm	UJ
G2090408	Diode	1SS270	R4070	J01225104	Carbon Film RES.	1/6W	100k ohm	PJ
G2090200	Diode	1SV80	R4071	J02225332	Carbon Film RES.	1/6W	3.3k ohm	UJ
G9090007	Varistor	MV-12	R4072	J02225560	Carbon Film RES.	1/6W	56 ohm	UJ
G2090408	Diode	1SS270	R4073	J01225560	Carbon Film RES.	1/6W	56 ohm	PJ
G2090408	Diode	1SS270	R4074	J01225473	Carbon Film RES.	1/6W	47k ohm	PJ
G2090408	Diode	1SS270	R4075	J02225473	Carbon Film RES.	1/6W	47k ohm	UJ
G2090383	Diode	MC911	R4076	J02225104	Carbon Film RES.	1/6W	100k ohm	UJ
G2090408	Diode	1SS270	R4077	J02225471	Carbon Film RES.	1/6W	470 ohm	UJ
G2090408	Diode	1SS270	R4078	J02225221	Carbon Film RES.	1/6W	220 ohm	UJ
			R4079	J02225681	Carbon Film RES.	1/6W	680 ohm	UJ
G9090001	Thermistor		R4080	J02225224	Carbon Film RES.	1/6W	220k ohm	UJ
			R4081	J02225102	Carbon Film RES.	1/6W	1k ohm	UJ
H0102815	XTAL	HC-49/T 24.4885MHz	R4082	J02225330	Carbon Film RES.	1/6W	33 ohm	UJ
H9500100	XTAL OSC	GFS-203H 20.48MHz	R4083	J02225103	Carbon Film RES.	1/6W	10k ohm	UJ
			R4084	J02225472	Carbon Film RES.	1/6W	4.7k ohm	UJ
H1102123	XTAL Filter	XF-10.7N-252-01	R4085	J02225102	Carbon Film RES.	1/6W	1k ohm	UJ
H1102123	XTAL Filter	XF-10.7N-252-01	R4086	J02225102	Carbon Film RES.	1/6W	1k ohm	UJ
H1102120	XTAL Filter	13N15A	R4087	J02225103	Carbon Film RES.	1/6W	10k ohm	UJ
			R4088	J02225102	Carbon Film RES.	1/6W	1k ohm	UJ
H3900393	Ceramic Filter	SFE10.7MS2-A	R4089	J02225101	Carbon Film RES.	1/6W	100 ohm	UJ
			R4090	J02225560	Carbon Film RES.	1/6W	56 ohm	UJ
J01225104	Carbon Film RES.	1/6W 100k ohm	PJ	R4091	J02225274	Carbon Film RES.	1/6W 270k ohm	UJ
J02225103	Carbon Film RES.	1/6W 10k ohm	UJ	R4092	J02225152	Carbon Film RES.	1/6W 1.5k ohm	UJ
J02225101	Carbon Film RES.	1/6W 100 ohm	UJ	R4093	J02225272	Carbon Film RES.	1/6W 2.7k ohm	UJ
J02225333	Carbon Film RES.	1/6W 33k ohm	UJ	R4094	J02225272	Carbon Film RES.	1/6W 2.7k ohm	UJ
J02225473	Carbon Film RES.	1/6W 47k ohm	UJ	R4095	J01225223	Carbon Film RES.	1/6W 22k ohm	PJ
J01225223	Carbon Film RES.	1/6W 22k ohm	PJ	R4096	J01225104	Carbon Film RES.	1/6W 100k ohm	PJ
J02225102	Carbon Film RES.	1/6W 1k ohm	UJ	R4100	J01225153	Carbon Film RES.	1/6W 15k ohm	PJ
J02225223	Carbon Film RES.	1/6W 22k ohm	UJ	R4101	J01225331	Carbon Film RES.	1/6W 330 ohm	PJ
J02225101	Carbon Film RES.	1/6W 100 ohm	UJ	R4102	J02225222	Carbon Film RES.	1/6W 2.2k ohm	UJ
J02225102	Carbon Film RES.	1/6W 1k ohm	UJ	R4103	J01225332	Carbon Film RES.	1/6W 3.3k ohm	PJ
J02225154	Carbon Film RES.	1/6W 150k ohm	UJ	R4104	J02225105	Carbon Film RES.	1/6W 1M ohm	UJ
J02225221	Carbon Film RES.	1/6W 220 ohm	UJ	R4105	J02225103	Carbon Film RES.	1/6W 10k ohm	UJ
J02225334	Carbon Film RES.	1/6W 330k ohm	UJ	R4106	J01225155	Carbon Film RES.	1/6W 1.5M ohm	PJ
J02225103	Carbon Film RES.	1/6W 10k ohm	UJ	R4107	J02225183	Carbon Film RES.	1/6W 18k ohm	UJ

J02225472	Carbon Film RES.	1/6W	4.7k ohm	UJ	R4110	J02225334	Carbon Film RES.	1/6W	330k ohm	UJ
J02225474	Carbon Film RES.	1/6W	470k ohm	UJ	R4111	J02225223	Carbon Film RES.	1/6W	22k ohm	UJ
J02225473	Carbon Film RES.	1/6W	47k ohm	UJ	R4112	J01225334	Carbon Film RES.	1/6W	330k ohm	PJ
J02225682	Carbon Film RES.	1/6W	6.8k ohm	UJ	R4113	J01225155	Carbon Film RES.	1/6W	1.5M ohm	PJ
J02225684	Carbon Film RES.	1/6W	680k ohm	UJ	R4114	J02225274	Carbon Film RES.	1/6W	270k ohm	UJ
J02225682	Carbon Film RES.	1/6W	6.8k ohm	UJ	R4115	J02225473	Carbon Film RES.	1/6W	47k ohm	UJ
J02225473	Carbon Film RES.	1/6W	47k ohm	UJ	R4116	J02225155	Carbon Film RES.	1/6W	1.5M ohm	UJ
J02225103	Carbon Film RES.	1/6W	10k ohm	UJ	R4117	J02225134	Carbon Film RES.	1/6W	130k ohm	UJ
J02225513	Carbon Film RES.	1/6W	51k ohm	UJ	R4118	J02225333	Carbon Film RES.	1/6W	33k ohm	UJ
J02225513	Carbon Film RES.	1/6W	51k ohm	UJ	R4120	J02225332	Carbon Film RES.	1/6W	3.3k ohm	UJ
J02225225	Carbon Film RES.	1/6W	2.2M ohm	UJ	R4121	J02225473	Carbon Film RES.	1/6W	47k ohm	UJ
J02225183	Carbon Film RES.	1/6W	18k ohm	UJ	R4124	J02225103	Carbon Film RES.	1/6W	10k ohm	UJ
J01225183	Carbon Film RES.	1/6W	18k ohm	PJ	R4125	J02225472	Carbon Film RES.	1/6W	4.7k ohm	UJ
J01225225	Carbon Film RES.	1/6W	2.2M ohm	PJ	R4126	J02225472	Carbon Film RES.	1/6W	4.7k ohm	UJ
J01225472	Carbon Film RES.	1/6W	4.7k ohm	PJ	R4127	J01225472	Carbon Film RES.	1/6W	4.7k ohm	PJ

PARTS LIST

R4128	J02225103	Carbon Film RES.	1/6W	10k ohm	UJ	C4057	K05172050	Ceramic CAP.	RH	50WV	0.01uF	J4003	P0090
R4129	J01225471	Carbon Film RES.	1/6W	470 ohm	PJ	C4058	K05175220	Ceramic CAP.	RH	50WV	0.01uF	J4004	P0090
R4130	J01225470	Carbon Film RES.	1/6W	47 ohm	PJ	C4059	K05175151	Ceramic CAP.	RH	50WV	0.01uF	J4005	P0090
R4131	J02225223	Carbon Film RES.	1/6W	22k ohm	UJ	C4060	K05175151	Ceramic CAP.	RH	50WV	0.01uF	J4006	P0090
R4132	J02225222	Carbon Film RES.	1/6W	2.2k ohm	UJ	C4061	K13179010	Ceramic CAP.	F	50WV	0.01uF	J4007	P0090
R4133	J02225222	Carbon Film RES.	1/6W	2.2k ohm	UJ	C4062	K00175220	Ceramic CAP.	SL	50WV	0.01uF	J4008	P0090
R4136	J02225221	Carbon Film RES.	1/6W	220 ohm	UJ	C4063	K13179010	Ceramic CAP.	F	50WV	0.01uF	J4009	P0090
R4137	J02225472	Carbon Film RES.	1/6W	4.7k ohm	UJ	C4064	K13179010	Ceramic CAP.	F	50WV	0.01uF	J4010	P0090
R4138	J02225683	Carbon Film RES.	1/6W	68k ohm	UJ	C4065	K00175220	Ceramic CAP.	SL	50WV	0.01uF	J4011	P0090
R4139	J02225682	Carbon Film RES.	1/6W	6.8k ohm	UJ	C4066	K13179010	Ceramic CAP.	F	50WV	0.01uF		
R4140	J02225471	Carbon Film RES.	1/6W	470 ohm	UJ	C4067	K13179010	Ceramic CAP.	F	50WV	0.01uF	P4001	P0090
R4141	J01225223	Carbon Film RES.	1/6W	22k ohm	PJ	C4068	K13179010	Ceramic CAP.	F	50WV	0.01uF		
R4142	J01225102	Carbon Film RES.	1/6W	1k ohm	PJ	C4069	K12171102	Ceramic CAP.	E	50WV	0.01uF		R0121
R4143	J01225471	Carbon Film RES.	1/6W	470 ohm	PJ	C4070	K13179010	Ceramic CAP.	F	50WV	0.01uF		
R4144	J01225471	Carbon Film RES.	1/6W	470 ohm	PJ	C4071	K12171102	Ceramic CAP.	E	50WV	0.01uF		
R4145	J01225100	Carbon Film RES.	1/6W	10 ohm	PJ	C4072	K13179008	Ceramic CAP.	F	50WV	0.01uF		
						C4073	K12171102	Ceramic CAP.	E	50WV	0.01uF		
VR4001	J51745473	POT.	B	47k ohm		C4074	K12171102	Ceramic CAP.	E	50WV	0.01uF		
VR4003	J51745104	POT.	B	100k ohm		C4075	K13179008	Ceramic CAP.	F	50WV	0.01uF		F28921
VR4004	J51745103	POT.	B	10k ohm		C4076	K12171102	Ceramic CAP.	E	50WV	0.01uF		C02892
						C4077	K13179010	Ceramic CAP.	F	50WV	0.01uF		
C4001	K10140013	Ceramic CAP.		25WV	0.01uF	C4078	K13179010	Ceramic CAP.	F	50WV	0.01uF		

C4002	K05173100	Ceramic CAP.	RH	50WV	10pF	C4079	K13179008	Ceramic CAP.	F	50WV	10pF	Q9901	G10901
C4003	K02172040	Ceramic CAP.	CH	50WV	4pF	C4080	K12171102	Ceramic CAP.	E	50WV	10pF	Q9902	G33271
C4004	K40109001	AL. Electro. CAP.		10WV	100uF	C4081	K12171102	Ceramic CAP.	E	50WV	10pF	Q9903	G33271
C4005	K02175101	Ceramic CAP.	CH	50WV	100pF	C4082	K40109002	AL. Electro. CAP.		10WV	100uF	D9901	G20700
C4006	K05175220	Ceramic CAP.	RH	50WV	22pF	C4083	K13179010	Ceramic CAP.	F	50WV	10pF	R9901	J24205
C4007	K05175151	Ceramic CAP.	RH	50WV	150pF	C4084	K13179010	Ceramic CAP.	F	50WV	10pF	R9902	J24205
C4008	K05175151	Ceramic CAP.	RH	50WV	150pF	C4085	K12171102	Ceramic CAP.	E	50WV	10pF	R9903	J24205
C4009	K40109001	AL. Electro. CAP.		10WV	100uF	C4086	K13179014	Ceramic CAP.	F	50WV	10pF	R9904	J24205
C4010	K13179010	Ceramic CAP.	F	50WV	0.022uF	C4087	K12171102	Ceramic CAP.	E	50WV	10pF	R9905	J24205
C4012	K40109001	AL. Electro. CAP.		10WV	100uF	C4088	K12171102	Ceramic CAP.	E	50WV	10pF	R9906	J24205
C4013	K12171102	Ceramic CAP.	E	50WV	0.001uF	C4089	K12171102	Ceramic CAP.	E	50WV	10pF	R9907	J24205
C4014	K12171102	Ceramic CAP.	E	50WV	0.001uF	C4090	K70147105	Tantalum CAP.		25WV	10uF	R9908	J24205
C4015	K40179013	AL. Electro. CAP.		50WV	1uF	C4091	K40109001	AL. Electro. CAP.		10WV	100uF	R9909	J24205
C4016	K40109001	AL. Electro. CAP.		10WV	100uF	C4092	K13179010	Ceramic CAP.	F	50WV	10pF	R9910	J24205
C4017	K13179010	Ceramic CAP.	F	50WV	0.022uF	C4093	K70127225	Tantalum CAP.		16WV	10uF	R9911	J24205
C4018	K40179016	AL. Electro. CAP.		50WV	0.1uF	C4094	K70107475	Tantalum CAP.		10WV	10uF	R9912	J24205
C4019	K19149007	Ceramic CAP.		25WV	0.0033uF	C4095	K55209003	Film CAP.		10WV	100pF	R9913	J24205
C4020	K19149025	Ceramic CAP.		25WV	0.1uF	C4100	K12171102	Ceramic CAP.	E	50WV	10pF	R9914	J24205
C4021	K70167224	Tantalum CAP.		35WV	0.22uF	C4101	K40129004	AL. Electro. CAP.		16WV	10uF	C9901	K22141
C4022	K70167224	Tantalum CAP.		35WV	0.22uF	C4102	K40179013	AL. Electro. CAP.		50WV	10uF	C9902	K22141
C4023	K19149002	Ceramic CAP.		25WV	0.0012uF	C4103	K40179016	AL. Electro. CAP.		50WV	10uF	C9903	K22170
C4024	K19149001	Ceramic CAP.		25WV	0.001uF	C4104	K70147105	Tantalum CAP.		10WV	10uF		Q50000
C4025	K19149013	Ceramic CAP.		25WV	0.01uF	C4105	K40179013	AL. Electro. CAP.		50WV	10uF		
C4026	K19149002	Ceramic CAP.		25WV	0.0012uF	C4108	K13179010	Ceramic CAP.	F	50WV	10pF	Symbol No.	Part No.
C4027	K40129004	AL. Electro. CAP.		16WV	10uF	C4109	K13179010	Ceramic CAP.	F	50WV	10pF		F289211
C4028	K12171102	Ceramic CAP.	E	50WV	0.001uF	C4110	K12171102	Ceramic CAP.	E	50WV	10pF		
C4029	K40179013	AL. Electro. CAP.		50WV	1uF	C4111	K13179010	Ceramic CAP.	F	50WV	10pF		C02892
C4030	K40179013	AL. Electro. CAP.		50WV	1uF	C4112	K12171102	Ceramic CAP.	E	50WV	10pF		
C4032	K40129004	AL. Electro. CAP.		16WV	10uF	C4113	K13179010	Ceramic CAP.	F	50WV	10pF		
C4033	K19149025	Ceramic CAP.		25WV	0.1uF	C4114	K13179009	Ceramic CAP.	F	50WV	10pF	Q9701	G109071
C4034	K40179012	AL. Electro. CAP.		50WV	4.7uF	C4116	K12171102	Ceramic CAP.	E	50WV	10pF	Q9702	G332611
C4035	K40129004	AL. Electro. CAP.		16WV	10uF	C4117	K02175121	Ceramic CAP.	CH	50WV	10pF	Q9703	G332611
C4036	K70147105	Tantalum CAP.		25WV	1uF	C4118	K02175121	Ceramic CAP.	CH	50WV	10pF	R9701	J242051
C4037	K00175150	Ceramic CAP.	SL	50WV	15pF	C4119	K40129054	AL. Electro. CAP.		16WV	10uF	R9702	J242053
C4038	K13179010	Ceramic CAP.	F	50WV	0.022uF	C4120	K00175101	Ceramic CAP.	SL	50WV	10pF	R9703	J242051
C4039	K00173100	Ceramic CAP.	SL	50WV	10pF	C4121	K70107475	Tantalum CAP.		10WV	10uF	R9704	J242051
C4040	K00172020	Ceramic CAP.	SL	50WV	2pF	C4122	K70107685	Tantalum CAP.		10WV	10uF	R9705	J242054
C4042	K13179010	Ceramic CAP.	F	50WV	0.022uF	C4123	K40129012	AL. Electro. CAP.		16WV	10uF	R9706	J2420511
C4043	K13179010	Ceramic CAP.	F	50WV	0.022uF	C4124	K19149021	Ceramic CAP.		25WV	10pF	R9707	J242051
C4044	K13179010	Ceramic CAP.	F	50WV	0.022uF	C4125	K19149021	Ceramic CAP.		25WV	10pF	R9708	J2420511
C4045	K12171102	Ceramic CAP.	E	50WV	0.001uF							C9701	K221708
C4046	K13179010	Ceramic CAP.	F	50WV	0.022uF	TC4001	K91000028	Variable CAP.		10pF		C9702	K221708
C4047	K40179013	AL. Electro. CAP.		50WV	1uF	T4001	L0021533	Coil				C9703	K221708
C4048	K19149025	Ceramic CAP.		25WV	0.1uF	T4002	L0021736	Coil				C9704	K221702
C4049	K19149009	Ceramic CAP.		25WV	0.004uF	T4003	L0021736	Coil				C9705	K221708
C4050	K19149003	Ceramic CAP.		25WV	0.0015uF							C9706	K221708
C4051	K12171102	Ceramic CAP.	E	50WV	0.001uF	L4001	L1190189	M. RFC		1mH			Q500005
				16WV	10uF	L4002	L0020533	Coil					
						L4003	L1190262	M. RFC		22uH			
						L4004	L1190258	M. RFC		10uH			
						L4005	L1190274	M. RFC		220uH		Symbol No.	Part No.
						L4006	L1190274	M. RFC		220uH			F2887101

C4052	K40129004	AL. Electro. CAP.							
C4053	K40179012	AL. Electro. CAP.	50WV	4.7uF	J4001	P0090524	Connector		
					J4002	P0090532	Connector		

C028873

PARTS LIST

Symbol No.	Part No.	Description	Device				
		VOX AMP UNIT					
	F2892102	Printed Circuit Board					
	C028922AA	PCB with Components					
	G1090559	IC	LA6324M				
	G3327127G	Transistor	2SC2712GR TE85R				
	G3327127G	Transistor	2SC2712GR TE85R				
	G2070003	Diode	1SS226 TE85R				
	J24205683	RES. Chip	1/10W 68k ohm				
	J24205472	RES. Chip	1/10W 4.7k ohm				
	J24205474	RES. Chip	1/10W 470k ohm				
	J24205103	RES. Chip	1/10W 10k ohm				
	J24205104	RES. Chip	1/10W 100k ohm				
	J24205472	RES. Chip	1/10W 4.7k ohm				
	P0090526	Connector		Q5001	G3304600B	Transistor	2SC460B
	P0090529	Connector		Q5002	G3304600B	Transistor	2SC460B
	P0090524	Connector		Q5003	G3304600B	Transistor	2SC460B
	P0090527	Connector		Q5004	G3304600B	Transistor	2SC460B
	P0090524	Connector		Q5005	G3304600B	Transistor	2SC460B
	P0090526	Connector		Q5006	G1090164	IC	uPC2002H
	P0090527	Connector		Q5008	G3304580C	Transistor	2SC458C
	P0090528	Connector		Q5009	G3304580C	Transistor	2SC458C
	P0090524	Connector		Q5010	G1090080	IC	uPC78L08
	P0090606	Connector		R5001	J02225153	Carbon Film RES.	1/6W 15k ohm UJ
	R0121120	Shield Case		R5002	J02225223	Carbon Film RES.	1/6W 22k ohm UJ
				R5003	J02225471	Carbon Film RES.	1/6W 470 ohm UJ
				R5004	J02225153	Carbon Film RES.	1/6W 15k ohm UJ
				R5005	J02225223	Carbon Film RES.	1/6W 22k ohm UJ
				R5006	J02225471	Carbon Film RES.	1/6W 470 ohm UJ
				R5007	J02225153	Carbon Film RES.	1/6W 15k ohm UJ
				R5008	J02225223	Carbon Film RES.	1/6W 22k ohm UJ
				R5009	J02225471	Carbon Film RES.	1/6W 470 ohm UJ
				R5010	J02225153	Carbon Film RES.	1/6W 15k ohm UJ
				R5011	J02225223	Carbon Film RES.	1/6W 22k ohm UJ
				R5012	J02225471	Carbon Film RES.	1/6W 470 ohm UJ
				R5013	J02225153	Carbon Film RES.	1/6W 15k ohm UJ
				R5014	J02225223	Carbon Film RES.	1/6W 22k ohm UJ
				R5015	J02225471	Carbon Film RES.	1/6W 470 ohm UJ
				R5016	J02225680	Carbon Film RES.	1/6W 68 ohm UJ
				R5018	J02225103	Carbon Film RES.	1/6W 10k ohm UJ
				R5019	J02225223	Carbon Film RES.	1/6W 22k ohm UJ
				R5020	J02225104	Carbon Film RES.	1/6W 100k ohm UJ
				R5021	J02225104	Carbon Film RES.	1/6W 100K ohm UJ
				R5022	J02275221	Carbon Film RES.	1/2W 220 ohm VJ
				R5023	J02245229	Carbon Film RES.	1/4W 2.2 ohm SJ
				R5024	J02245010	Carbon Film RES.	1/4W 1 ohm SJ
				R5026	J02225102	Carbon Film RES.	1/6W 1k ohm UJ

WV	100uF	J24205474	RES. Chip	1/10W 470k ohm	R5027	J02225472	Carbon Film RES.	1/6W 4.7k ohm	UJ
WV	100uF	J24205472	RES. Chip	1/10W 4.7k ohm	R5028	J02245229	Carbon Film RES.	1/4W 2.2 ohm	SJ
WV	0.022uF	J24205474	RES. Chip	1/10W 470k ohm	R5029	J02225332	Carbon Film RES.	1/6W 3.3k ohm	UJ
WV	2.2uF	J24205472	RES. Chip	1/10W 4.7k ohm	R5030	J02245010	Carbon Film RES.	1/4W 1 ohm	SJ
WV	4.7uF	J24205472	RES. Chip	1/10W 4.7k ohm	C5001	K12171102	Ceramic CAP.	E 50WV	0.001uF
WV	0.0047uF	J24205472	RES. Chip	1/10W 4.7k ohm	C5002	K12171102	Ceramic CAP.	E 50WV	0.001uF
WV	0.001uF	J24205472	RES. Chip	1/10W 4.7k ohm	C5003	K12171102	Ceramic CAP.	E 50WV	0.001uF
WV	10uF	J24205000	RES. Chip	1/10W 0 ohm	C5004	K12171102	Ceramic CAP.	E 50WV	0.001uF
WV	1uF	K22141904	CAP. Chip	D 25WV 0.1uF	C5005	K12171102	Ceramic CAP.	E 50WV	0.001uF
WV	1uF	K22141904	CAP. Chip	D 25WV 0.1uF	C5006	K12171102	Ceramic CAP.	E 50WV	0.001uF
WV	0.1uF	K22170817	CAP. Chip	B 50WV 0.01uF	C5007	K12171102	Ceramic CAP.	E 50WV	0.001uF
WV	1uF				C5008	K12171102	Ceramic CAP.	E 50WV	0.001uF
WV	1uF				C5009	K12171102	Ceramic CAP.	E 50WV	0.001uF
WV	1uF				C5010	K12171102	Ceramic CAP.	E 50WV	0.001uF
WV	0.022uF				C5011	K19149017	Ceramic CAP.	E 25WV	0.022uF
WV	0.022uF				C5012	K12171102	Ceramic CAP.	E 50WV	0.001uF
WV	0.001uF				C5013	K40179013	AL. Electro. CAP.	50WV	1uF
WV	0.022uF				C5014	K01175101	Ceramic CAP.	SL 50WV	100pF
WV	0.022uF				C5015	K12171102	Ceramic CAP.	E 50WV	0.001uF
WV	0.001uF				C5016	K40109007	AL. Electro. CAP.	10WV	220uF
WV	0.022uF				C5017	K40109012	AL. Electro. CAP.	10WV	1000uF
WV	0.047uF				C5018	K19149025	Ceramic CAP.	E 25WV	0.1uF
WV	0.001uF				C5019	K12171102	Ceramic CAP.	E 50WV	0.001uF
WV	120pF				C5020	K40129050	AL. Electro. CAP.	16WV	2200uF
WV	120pF				C5022	K40129004	AL. Electro. CAP.	16WV	10uF
WV	47uF				C5024	K40129004	AL. Electro. CAP.	16WV	10uF
WV	100pF				C5025	K12171102	Ceramic CAP.	E 50WV	0.001uF
WV	4.7uF				C5026	K12171102	Ceramic CAP.	E 50WV	0.001uF
WV	6.8uF				C5029	K13179010	Ceramic CAP.	F 50WV	0.022uF
WV	10uF				C5030	K13179010	Ceramic CAP.	F 50WV	0.022uF
WV	0.047uF				C5031	K13179010	Ceramic CAP.	F 50WV	0.022uF
WV	0.047uF				C5032	K19129013	Ceramic CAP.	E 25WV	0.01uF
					J5001	P0090525	Connector		
					J5002	P0090524	Connector		
					J5003	P0090524	Connector		
					J5004	P0090526	Connector		
					J5005	P0090525	Connector		
					J5006	P0090524	Connector		
					J5007	P0090524	Connector		
					J5008	P0090524	Connector		
					J5009	P0090524	Connector		
					J5010	P0090535	Connector		
					J5011	P0090535	Connector		
					J5012	P0090535	Connector		
					J5013	P0090535	Connector		

13MHz TX PLL UNIT				
Part No.	Description	Device		
F2892110A	Printed Circuit Board			
C02892AAA	PCB with Components			
G1090739	IC	MC145163SL		
G3326197B	Transistor	2SC2619FBTR		
G3326197B	Transistor	2SC2619FBTR		
J24205102	RES. Chip	1/10W 1k ohm		
J24205332	RES. Chip	1/10W 3.3k ohm		
J24205104	RES. Chip	1/10W 100k ohm		
J24205102	RES. Chip	1/10W 1k ohm		
J24205472	RES. Chip	1/10W 4.7k ohm		
J24205103	RES. Chip	1/10W 10k ohm		
J24205102	RES. Chip	1/10W 1k ohm		
J24205104	RES. Chip	1/10W 100k ohm		
K22170817	CAP. Chip	B	50WV	0.01uF
K22170817	CAP. Chip	B	50WV	0.01uF
K22170817	CAP. Chip	B	50WV	0.01uF
K22170203	CAP. Chip	CH	50WV	2PF
K22170817	CAP. Chip	B	50WV	0.01uF
K22170817	CAP. Chip	B	50WV	0.01uF
Q5000057	Lead Frame			

AF UNIT				
Part No.	Description	Device		
F2887103A	Printed Circuit Board			
C028873AA	PCB with Components			

PARTS LIST

J5014	P0090525	Connector	
J5015	P0090527	Connector	
J5016	P0090429	Connector	
J5017	P0090429	Connector	
J5018	P0090429	Connector	
J5019	P0090429	Connector	
J5020	P0090525	Connector	
	R0087040A	AF Heatshink	
	R0102810	Nut Board	
144MHz MAIN UNIT			
Symbol No.	Part No.	Description	Device
	F288101A	Printed Circuit Board	
	C028881AX	PCB with Components: as shown below	
Q6001	G4801220L	FET	3SK122L
Q6002	G2090247	Diode	ND487C1-3R
Q6003	G4801220L	FET	3SK122L
Q6004	G3090079	Transistor	BA1A4P
Q6005	G3802410G	FET	2SK241GR
Q6006	G3802410G	FET	2SK241GR
Q6007	G3320260	Transistor	2SC2026
Q6008	G3320530	Transistor	2SC2053
Q6009	G3801921G	FET	2SK192AGR
Q6010	G3802410G	FET	2SK241GR
Q6011	G3305350B	Transistor	2SC535B
Q6012	G3304580C	Transistor	2SC458C
Q6013	G3802410G	FET	2SK241GR
Q6014	G3802410G	FET	2SK241GR
Q6015	G3305350B	Transistor	2SC535B
Q6016	G3305350B	Transistor	2SC535B
Q6017	G1090798	IC	MC145155P
Q6018	G3304580C	Transistor	2SC458C
Q6019	G3304580C	Transistor	2SC458C
Q6020	G1090084	IC	uPC78L05
Q6021	G1090707	IC	MC145156P
Q6022	G1090795	IC	MB504
Q6027	G1090796	IC	MB505-16
Q6028	G1090247	IC	TC9122P
Q6029	G1090473	IC	TC5081AP
		Transistor	2SC460B

X6001	H0102814	XTAL	HC-48/T 20.5043MHz
XF6001	H1102126	XTAL Filter	13M20A
R6001	J02225473	Carbon Film RES.	1/6W 47k ohm
R6002	J02225470	Carbon Film RES.	1/6W 47 ohm
R6003	J02225225	Carbon Film RES.	1/6W 2.2M ohm
R6004	J02225470	Carbon Film RES.	1/6W 47 ohm
R6005	J02225102	Carbon Film RES.	1/6W 1K ohm
R6006	J02225331	Carbon Film RES.	1/6W 330 ohm
R6007	J02225180	Carbon Film RES.	1/6W 18 ohm
R6008	J02225331	Carbon Film RES.	1/6W 330 ohm
R6009	J02225473	Carbon Film RES.	1/6W 47k ohm
R6010	J02225470	Carbon Film RES.	1/6W 47 ohm
R6011	J02225473	Carbon Film RES.	1/6W 47k ohm
R6012	J02225473	Carbon Film RES.	1/6W 47k ohm
R6013	J02225470	Carbon Film RES.	1/6W 47 ohm
R6014	J02225680	Carbon Film RES.	1/6W 68 ohm
R6015	J02225681	Carbon Film RES.	1/6W 680 ohm
R6016	J02225680	Carbon Film RES.	1/6W 68 ohm
R6017	J02225221	Carbon Film RES.	1/6W 220 ohm
R6018	J02225101	Carbon Film RES.	1/6W 100 ohm
R6019	J02225101	Carbon Film RES.	1/6W 100 ohm
R6020	J02225470	Carbon Film RES.	1/6W 47 ohm
R6021	J02225560	Carbon Film RES.	1/6W 56 ohm
R6022	J01225473	Carbon Film RES.	1/6W 47k ohm
R6023	J01225473	Carbon Film RES.	1/6W 47k ohm
R6024	J02225104	Carbon Film RES.	1/6W 100k ohm
R6025	J02225104	Carbon Film RES.	1/6W 100k ohm
R6026	J02225101	Carbon Film RES.	1/6W 100 ohm
R6027	J02225104	Carbon Film RES.	1/6W 100k ohm
R6028	J02225104	Carbon Film RES.	1/6W 100k ohm
R6029	J02225104	Carbon Film RES.	1/6W 100k ohm
R6030	J01225104	Carbon Film RES.	1/6W 100k ohm
R6031	J01225561	Carbon Film RES.	1/6W 560 ohm
R6032	J02225221	Carbon Film RES.	1/6W 220 ohm
R6033	J02225220	Carbon Film RES.	1/6W 22 ohm
R6034	J01225479	Carbon Film RES.	1/6W 4.7 ohm
R6035	J02225821	Carbon Film RES.	1/6W 820 ohm
R6036	J02225474	Carbon Film RES.	1/6W 470k ohm
R6037	J02225101	Carbon Film RES.	1/6W 100 ohm
R6038	J02225101	Carbon Film RES.	1/6W 100 ohm
R6039	J02225473	Carbon Film RES.	1/6W 47k ohm
R6040	J02225223	Carbon Film RES.	1/6W 22k ohm
R6041	J02225103	Carbon Film RES.	1/6W 10k ohm

R6096	J01
R6097	J02
R6098	J02
R6099	J01
R6100	J02
R6101	J01
R6102	J01
R6103	J02
R6104	J01
R6105	J01
R6106	J01
R6107	J01
R6108	J01
R6109	J02
R6110	J02
R6111	J02
R6112	J02
R6113	J02
R6114	J02
R6115	J02
R6116	J02
R6117	J01
R6118	J02
R6119	J01
R6120	J02
R6121	J02
R6122	J242
R6123	J02
R6125	J242
R6126	J02
VR6001	J517
VR6002	J517
VR6003	J517
VR6004	J517
C6001	K05
C6002	K05
C6003	K13
C6004	K13
C6005	K13
C6006	K13
C6007	K00
C6008	K12
C6009	K13
C6010	K12

Q6030	G3304600B	Transistor	2SC460B	R6042	J01225221	Carbon Film RES.	1/6W 220 ohm	C6011	K121
Q6031	G3305350B	Transistor	2SC535B	R6043	J02225104	Carbon Film RES.	1/6W 100k ohm	C6012	K131
Q6032	G3305350B	Transistor	2SC535B	R6044	J01225562	Carbon Film RES.	1/6W 5.6k ohm	C6014	K001
Q6033	G3802410G	FET	2SK241GR	R6045	J01225103	Carbon Film RES.	1/6W 10k ohm	C6015	K101
Q6034	G3304600B	Transistor	2SC460B	R6046	J02225560	Carbon Film RES.	1/6W 56 ohm	C6016	K131
C6035	G3207720Q	Transistor	2SB772Q	R6047	J02225222	Carbon Film RES.	1/6W 2.2k ohm	C6017	K131
C6036	G3207720Q	Transistor	2SB772Q	R6048	J02225222	Carbon Film RES.	1/6W 2.2k ohm	C6018	K131
Q3037	G3115280	Transistor	2SA1528	R6049	J02225473	Carbon Film RES.	1/6W 47k ohm	C6019	K131
Q6038	G3115280	Transistor	2SA1528	R6050	J02225471	Carbon Film RES.	1/6W 470 ohm	C6020	K131
Q6039	G3090079	Transistor	BA1A4P	R6051	J01225223	Carbon Film RES.	1/6W 22k ohm	C6021	K131
Q6040	G3090079	Transistor	BA1A4P	R6052	J02225562	Carbon Film RES.	1/6W 5.6k ohm	C6022	K001
D6001	G2090408	Diode	1SS270	R6053	J02225102	Carbon Film RES.	1/6W 1k ohm	C6023	K001
D6002	G2090027	Diode	1SS53	R6054	J02225473	Carbon Film RES.	1/6W 47k ohm	C6024	K131
D6003	G2090027	Diode	1SS53	R6055	J02225470	Carbon Film RES.	1/6W 47 ohm	C6025	K131
D6004	G2022090	Diode	1S2209	R6056	J01225471	Carbon Film RES.	1/6W 470 ohm	C6026	K051
D6005	G2022090	Diode	1S2209	R6057	J01225103	Carbon Film RES.	1/6W 10k ohm	C6027	K051
D6006	G2022090	Diode	1S2209	R6058	J01225222	Carbon Film RES.	1/6W 2.2k ohm	C6028	K051
D6007	G2022090	Diode	1S2209	R6059	J02225681	Carbon Film RES.	1/6W 680 ohm	C6029	K131
D6008	G2015550	Diode	1S1555	R6060	J02225471	Carbon Film RES.	1/6W 470 ohm	C6030	K001
D6009	G2090271	Diode	1T33	R6061	J02225102	Carbon Film RES.	1/6W 1k ohm	C6031	K051
D6010	G2090271	Diode	1T33	R6062	J02225102	Carbon Film RES.	1/6W 1k ohm	C6032	K051
D6011	G2022090	Diode	1S2209	R6064	J02225103	Carbon Film RES.	1/6W 10k ohm	C6033	K021
D6012	G2090027	Diode	1SS53	R6065	J02225332	Carbon Film RES.	1/6W 3.3k ohm	C6034	K051
D6013	G2090027	Diode	1SS53	R6066	J02225101	Carbon Film RES.	1/6W 100 ohm	C6035	K051
D6014	G2090408	Diode	1SS270	R6067	J02225332	Carbon Film RES.	1/6W 3.3k ohm	C6036	K001
D6017	G2090384	Diode	HZ7C2	R6068	J02225103	Carbon Film RES.	1/6W 10k ohm	C6037	K051
D6018	G2022090	Diode	1S2209	R6069	J02225681	Carbon Film RES.	1/6W 680 ohm	C6038	K021
D6019	G2090408	Diode	1SS270	R6071	J02225101	Carbon Film RES.	1/6W 100 ohm	C6039	K001
D6020	G2090408	Diode	1SS270	R6072	J02225222	Carbon Film RES.	1/6W 2.2k ohm	C6040	K131
D6021	G2090408	Diode	1SS270	R6073	J01225151	Carbon Film RES.	1/6W 150 ohm	C6041	K121
D6022	G2090408	Diode	1SS270	R6074	J02225222	Carbon Film RES.	1/6W 2.2k ohm	C6042	K121
D6023	G2090408	Diode	1SS270	R6075	J02225471	Carbon Film RES.	1/6W 470 ohm	C6043	K401
D6025		See Model Chart		R6076	J01225102	Carbon Film RES.	1/6W 1k ohm	C6044	K121
D6026		See Model Chart		R6088	J02225560	Carbon Film RES.	1/6W 56 ohm	C6045	K131
D6027		See Model Chart		R6089	J02225101	Carbon Film RES.	1/6W 100 ohm	C6046	K001
D6030		See Model Chart		R6090	J02225332	Carbon Film RES.	1/6W 3.3k ohm	C6047	K131
D6031		See Model Chart		R6091	J02225222	Carbon Film RES.	1/6W 2.2k ohm	C6048	K401
D6032	G2090408	Diode	1SS270	R6092	J02225104	Carbon Film RES.	1/6W 100k ohm	C6049	K021
TH6001	G9090026	Thermistor		R6093	J01225472	Carbon Film RES.	1/6W 4.7k ohm	C6050	K131
TH6002	G9090020	Thermistor		R6094	J02225333	Carbon Film RES.	1/6W 33k ohm		
				R6095	J02225473	Carbon Film RES.	1/6W 47k ohm		

Version	PCB with Components		Version	PCB with Components	
	w/o 144MHz ALC UNIT, 144MHz SHIFT UNIT, 144MHz SUB VCO UNIT	w/o 144MHz ALC UNIT, 144MHz SHIFT UNIT, 144MHz SUB VCO UNIT		w/o 144MHz ALC UNIT, 144MHz SHIFT UNIT, 144MHz SUB VCO UNIT	w/o 144MHz ALC UNIT, 144MHz SHIFT UNIT, 144MHz SUB VCO UNIT
A1H2	C028881AA	C028881AJ	B3C3	C028881AE	C028881AN
B1	C028881AC	C028881AK	D1	C028881AF	C028881AP
B2C2	C028881AD	C028881AL	F	C028881AG	C028881AQ
		C028881AM	H1	C028881AH	C028881AR

MHz	0096	J01225102	Carbon Film RES.	1/6W	1k ohm	PJ	C6051	K40129004	AL. Electro. CAP.		16WV	10uF
	0097	J02225101	Carbon Film RES.	1/6W	100 ohm	UJ						
	0098	J02225473	Carbon Film RES.	1/6W	47k ohm	UJ	C6052	K22170204	CAP. Chip		50WV	3pF
	0099	J01225223	Carbon Film RES.	1/6W	22k ohm	PJ	C6053	K13179008	Ceramic CAP.	F	50WV	0.01uF
UJ	0100	J02225562	Carbon Film RES.	1/6W	5.6k ohm	UJ	C6054	K12171102	Ceramic CAP.	E	50WV	0.01uF
UJ	0101	J01225331	Carbon Film RES.	1/6W	330 ohm	PJ	C6055	K12171102	Ceramic CAP.	E	50WV	0.01uF
UJ	0102	J01225101	Carbon Film RES.	1/6W	100 ohm	PJ	C6056	K06173070	Ceramic CAP.	UJ	50WV	7pF
UJ	0103	J02225560	Carbon Film RES.	1/6W	56 ohm	UJ	C6057	K02173060	Ceramic CAP.	CH	50WV	6pF
UJ	0104	J01225223	Carbon Film RES.	1/6W	22k ohm	PJ	C6058	K05172050	Ceramic CAP.	RJ	50WV	5pF
UJ	0105	J01225682	Carbon Film RES.	1/6W	6.8k ohm	PJ	C6059	K06172050	Ceramic CAP.	UJ	50WV	5pF
UJ	0106	J01225331	Carbon Film RES.	1/6W	330 ohm	PJ	C6060	K40109001	AL. Electro. CAP.		10WV	100uF
UJ	0107	J01225101	Carbon Film RES.	1/6W	100 ohm	PJ						
UJ	0108	J01225331	Carbon Film RES.	1/6W	330 ohm	PJ	C6061	K12171102	Ceramic CAP.	E	50WV	0.001uF
UJ	0109	J02225101	Carbon Film RES.	1/6W	100 ohm	UJ	C6062	K02172020	Ceramic CAP.	CK	50WV	2pF
UJ	0110	J02225471	Carbon Film RES.	1/6W	470 ohm	UJ	C6063	K13179014	Ceramic CAP.	F	50WV	0.0047uF
UJ	0111	J02225223	Carbon Film RES.	1/6W	22k ohm	UJ	C6064	K00172040	Ceramic CAP.	SL	50WV	4pF
UJ	0112	J02225562	Carbon Film RES.	1/6W	5.6k ohm	UJ	C6065	K13179008	Ceramic CAP.	F	50WV	0.01uF
UJ	0113	J02225331	Carbon Film RES.	1/6W	330 ohm	UJ	C6066	K00173070	Ceramic CAP.	SL	50WV	7pF
UJ	0114	J02225102	Carbon Film RES.	1/6W	1k ohm	UJ	C6067	K02179001	Ceramic CAP.	CK	50WV	1pF
UJ	0115	J02225105	Carbon Film RES.	1/6W	1M ohm	UJ	C6068	K13179008	Ceramic CAP.	F	50WV	0.01uF
UJ	0116	J02225103	Carbon Film RES.	1/6W	10k ohm	UJ	C6069	K12171102	Ceramic CAP.	E	50WV	0.001uF
UJ	0117	J01225471	Carbon Film RES.	1/2W	470 ohm	TJ	C6070	K12171102	Ceramic CAP.	E	50WV	0.001uF
UJ	0118	J02225103	Carbon Film RES.	1/6W	10k ohm	UJ	C6071	K13179008	Ceramic CAP.	F	50WV	0.01uF
UJ	0119	J01225471	Carbon Film RES.	1/6W	470 ohm	PJ	C6072	K02172059	Ceramic CAP.	CK	50WV	0.5pF
UJ	0120	J02225102	Carbon Film RES.	1/6W	1k ohm	UJ	C6073	K13179014	Ceramic CAP.	F	50WV	0.0047uF
UJ	0121	J02225102	Carbon Film RES.	1/6W	1k ohm	UJ	C6074	K02172040	Ceramic CAP.	CH	50WV	4pF
PJ	0122	J24205561	RES. Chip	1/10W	560 ohm		C6075	K12171102	Ceramic CAP.	E	50WV	0.001uF
PJ	0123	J02225101	Carbon Film RES.	1/6W	100 ohm	UJ	C6076	K00173100	Ceramic CAP.	SL	50WV	10pF
UJ	0124	J24205104	RES. Chip	1/10W	100k ohm		C6077	K00173100	Ceramic CAP.	SL	50WV	10pF
UJ	0125	J02225471	Carbon Film RES.	1/6W	470 ohm	UJ	C6078	K12171102	Ceramic CAP.	E	50WV	0.001uF
UJ	0126						C6079	K70147105	Tantalum CAP.		25WV	1uF
UJ	0101	J51745102	POT.	B	1k ohm		C6080	K13179008	Ceramic CAP.	F	50WV	0.01uF
UJ	0102	J51745473	POT.	B	47k ohm		C6081	K40109001	AL. Electro. CAP.		10WV	100uF
UJ	0103	J51745473	POT.	B	47k ohm							
PJ	0104	J51745104	POT.	B	100k ohm		C6082	K70147105	Tantalum CAP.		25WV	1uF
UJ	0101	K05173100	Ceramic CAP.	RH	50WV	10pF	C6084	K19149021	Ceramic CAP.		25WV	0.047uF
UJ	0102	K05172050	Ceramic CAP.	RH	50WV	5pF	C6085	K19149021	Ceramic CAP.		25WV	0.047uF
PJ	0103	K13179008	Ceramic CAP.	F	50WV	0.01uF	C6086	K12171102	Ceramic CAP.	E	50WV	0.001uF
UJ	0104	K13179008	Ceramic CAP.	F	50WV	0.01uF	C6087	K13179008	Ceramic CAP.	F	50WV	0.01uF
UJ	0105	K13179008	Ceramic CAP.	F	50WV	0.01uF	C6088	K13179008	Ceramic CAP.	F	50WV	0.01uF
UJ	0106	K13179008	Ceramic CAP.	F	50WV	0.01uF	C6089	K00175470	Ceramic CAP.	SL	50WV	47pF
UJ	0107	K00172040	Ceramic CAP.	SL	50WV	4pF	C6090	K00175220	Ceramic CAP.	SL	50WV	22pF
UJ	0108	K12171102	Ceramic CAP.	E	50WV	0.001uF	C6091	K13179008	Ceramic CAP.	F	50WV	0.01uF
UJ	0109	K13179014	Ceramic CAP.	F	50WV	0.0047uF	C6092	K13179008	Ceramic CAP.	F	50WV	0.01uF
UJ	0110	K12171102	Ceramic CAP.	E	50WV	0.001uF	C6093	K12171102	Ceramic CAP.	E	50WV	0.001uF
PJ	0111	K12171102	Ceramic CAP.	E	50WV	0.001uF	C6094	K70167104	Tantalum CAP.		35WV	0.1uF
UJ	0112	K13179014	Ceramic CAP.	F	50WV	0.0047uF	C6095	K40109002	AL. Electro. CAP.		10WV	47uF
PJ	0113	K00175330	Ceramic CAP.	SL	50WV	33pF						
PJ	0114	K10179024	Ceramic CAP.	B	50WV	0.01uF	C6096	K13179008	Ceramic CAP.	F	50WV	0.01uF
UJ	0115	K13179008	Ceramic CAP.	F	50WV	0.01uF	C6097	K40109001	AL. Electro. CAP.		10WV	100uF
UJ	0116	K13179008	Ceramic CAP.	F	50WV	0.01uF						
UJ	0117	K13179008	Ceramic CAP.	F	50WV	0.01uF	C6098	K12171102	Ceramic CAP.	E	50WV	0.001uF
UJ	0118	K13179008	Ceramic CAP.	F	50WV	0.01uF	C6099	K12171102	Ceramic CAP.	E	50WV	0.001uF
UJ	0119	K13179014	Ceramic CAP.	F	50WV	0.0047uF	C6100	K12171102	Ceramic CAP.	E	50WV	0.001uF
UJ	0120	K13179014	Ceramic CAP.	F	50WV	0.0047uF	C6101	K19149021	Ceramic CAP.		25WV	0.047uF
PJ	0121	K13179008	Ceramic CAP.	F	50WV	0.01uF	C6102	K12171102	Ceramic CAP.	E	50WV	0.001uF
UJ	0122	K00173100	Ceramic CAP.	SL	50WV	10pF	C6103	K70167474	Tantalum CAP.		35WV	0.47uF
UJ	0123	K00173100	Ceramic CAP.	SL	50WV	10pF	C6104	K19149021	Ceramic CAP.		25WV	0.047uF

ohm	UJ	K13179008	Ceramic CAP.	F	50WV	0.01uF	C6121	K12171102	Ceramic CAP.	E	50WV	0.047uF
ohm	UJ	K13179008	Ceramic CAP.	F	50WV	0.01uF	C6122	K13179014	Ceramic CAP.	F	50WV	0.0047uF
ohm	PJ	K05175150	Ceramic CAP.	RH	50WV	15pF	C6123	K19149025	Ceramic CAP.		25WV	0.1uF
ohm	PJ	K05175150	Ceramic CAP.	RH	50WV	15pF	C5124	K12171102	Ceramic CAP.	E	50WV	0.001uF
ohm	UJ	K05172020	Ceramic CAP.	RK	50WV	2pF	C6125	K19149021	Ceramic CAP.		25WV	0.047uF
ohm	UJ	K13179008	Ceramic CAP.	F	50WV	0.01uF	C6126	K40109001	AL. Electro. CAP.		10WV	100uF
ohm	UJ	K00175120	Ceramic CAP.	SL	50WV	12pF						
ohm	UJ	K05173080	Ceramic CAP.	RH	50WV	8pF	C6127	K70167154	Tantalum CAP.		35WV	0.15uF
ohm	UJ	K05172020	Ceramic CAP.	RK	50WV	2pF	C6128	K19149021	Ceramic CAP.		25WV	0.047uF
ohm	UJ	K02172059	Ceramic CAP.	CK	50WV	0.5pF	C6129	K12171102	Ceramic CAP.	E	50WV	0.001uF
ohm	UJ	K05173080	Ceramic CAP.	RH	50WV	8pF	C6130	K05173080	Ceramic CAP.	RH	50WV	8pF
ohm	UJ	K05172020	Ceramic CAP.	RK	50WV	2pF	C6131	K02175101	Ceramic CAP.	CH	50WV	100pF
ohm	UJ	K00175120	Ceramic CAP.	SL	50WV	12pF	C6132	K05175470	Ceramic CAP.	RH	50WV	47pF
ohm	UJ	K05173080	Ceramic CAP.	RH	50WV	8pF	C6133	K13179008	Ceramic CAP.	F	50WV	0.01uF
ohm	UJ	K02179001	Ceramic CAP.	CK	50WV	1pF	C6134	K12171102	Ceramic CAP.	E	50WV	0.001uF
ohm	UJ	K00173070	Ceramic CAP.	SL	50WV	7pF	C6135	K02179001	Ceramic CAP.	CK	50WV	1pF
ohm	UJ	K13179014	Ceramic CAP.	F	50WV	0.0047uF	C6136	K00175101	Ceramic CAP.	SL	50WV	100pF
ohm	UJ	K12171102	Ceramic CAP.	E	50WV	0.001uF	C6137	K13179008	Ceramic CAP.	F	50WV	0.01uF
ohm	UJ	K12171102	Ceramic CAP.	E	50WV	0.001uF	C6138	K13179008	Ceramic CAP.	F	50WV	0.01uF
ohm	PJ	K40129004	AL. Electro. CAP.		16WV	10uF	C6139	K05173090	Ceramic CAP.	RH	50WV	9pF
ohm	UJ	K12171102	Ceramic CAP.	E	50WV	0.001uF	C6140	K40129004	AL. Electro. CAP.		16WV	10uF
ohm	UJ	K13179014	Ceramic CAP.	F	50WV	0.0047uF	C6141	K00173100	Ceramic CAP.	SL	50WV	10pF
ohm	UJ	K00175180	Ceramic CAP.	SL	50WV	18pF	C6142	K05173090	Ceramic CAP.	RH	50WV	9pF
ohm	UJ	K13179014	Ceramic CAP.	F	50WV	0.0047uF	C6143	K02172059	Ceramic CAP.	CK	50WV	0.5pF
ohm	UJ	K40129004	AL. Electro. CAP.		16WV	10uF	C6144	K05173090	Ceramic CAP.	RH	50WV	9pF
ohm	PJ						C6145	K00175220	Ceramic CAP.	SL	50WV	22pF
ohm	UJ	K02172040	Ceramic CAP.	CH	50WV	4pF	C6146	K13179008	Ceramic CAP.	F	50WV	0.01uF
ohm	UJ	K13179008	Ceramic CAP.	F	50WV	0.01uF	C6147	K05173090	Ceramic CAP.	RH	50WV	9pF

WT.
UNIT.
SO UNIT

PARTS LIST

C6148	K13179008	Ceramic CAP.	F	50WV	0.01uF	J6006	P0090526	Connector	
C6149	K13179008	Ceramic CAP.	F	50WV	0.01uF	J6007	P0090525	Connector	
C6150	K13179008	Ceramic CAP.	F	50WV	0.01uF	J6008	P0090524	Connector	
C6151	K13179008	Ceramic CAP.	F	50WV	0.01uF	J6009	P0090532	Connector	
C6152	K02172020	Ceramic CAP.	CK	50WV	2pF				
C6153	K40129004	AL. Electro. CAP.		16WV	10uF	TP6001	Q5000036	TP-G	MK-1095
						TP6002	Q5000036	TP-G	MK-1095
C6154	K13179008	Ceramic CAP.	F	50WV	0.01uF	TP6003	Q5000036	TP-G	MK-1095

Symbol No.	F
	F
	C
Q6024	G

C6155	K00172050	Ceramic CAP.	SL	50WV	5pF
C6156	K40179011	Ceramic CAP.		50WV	3.3uF
C6157	K13179008	Ceramic CAP.	F	50WV	0.01uF
C6158	K13179014	Ceramic CAP.	F	50WV	0.0047uF
C6159	K13179014	Ceramic CAP.	F	50WV	0.0047uF
C6160	K19149013	Ceramic CAP.		25WV	0.01uF
C6161	K12171102	Ceramic CAP.	E	50WV	0.001uF
C6162	K00175101	Ceramic CAP.	SL	50WV	100pF
C6163	K12171102	Ceramic CAP.	E	50WV	0.001uF
C6164	K12171102	Ceramic CAP.	E	50WV	0.001uF
C6165	K12171102	Ceramic CAP.	E	50WV	0.001uF
C6166	K00175101	Ceramic CAP.	SL	50WV	100pF
C6167	K12171102	Ceramic CAP.	E	50WV	0.001uF
C6168	K12171102	Ceramic CAP.	E	50WV	0.001uF
C6169	K70167104	Tantalum CAP.		35WV	0.1uF
C6170	K40109001	AL. Electro. CAP.		10WV	100uF
C6172	K00175101	Ceramic CAP.	SL	50WV	100pF
C6173	K13179008	Ceramic CAP.	F	50WV	0.01uF
C6174	K22170221	CAP. Chip	CH	50WV	10pF
C6175	K22170805	CAP. Chip	B	50WV	0.001uF
C6176	K22170805	CAP. Chip	B	50WV	0.001uF
C6177	K22170805	CAP. Chip	B	50WV	0.001uF
C6179	K22171004	CAP. Chip	F	50WV	0.01uF
C6180	K22171004	CAP. Chip	F	50WV	0.01uF
C6181	K22171004	CAP. Chip	F	50WV	0.01uF
C6182	K22141804	CAP. Chip	B	25WV	0.022uF
C6183	K22170203	CAP. Chip	CH	50WV	2pF
TC6001	K91000028	Variable CAP.		10pF	
TC6002	K91000055	Variable CAP.		6pF	
T6001	L0020345	Coil			
T6002	L0021718	Coil			
T6003	L0021718	Coil			
T6004	L0021736	Coil			
T6005	L0021736	Coil			
T6006	L0021735	Coil			
T6007	L0021736	Coil			
T6008	L0020907	Coil			
T6009	L0020907	Coil			
T6010	L0020907	Coil			
T6011	L0020907	Coil			
T6012	L0020907	Coil			
T6013	L0020907	Coil			
T6014	L0020907	Coil			
T6015	L0020907	Coil			
T6016	L0020907	Coil			
L6001	L1020673	RFC			
L6002	L1020673	RFC			
L6003	L0020678	Coil			
L6004	L0020679	Coil			
L6005	L0020679	Coil			
L6006	L1020673	RFC			
L6007	L1190246	M. RFC			
L6008	L1190246	M. RFC			
L6009	L0190150	Coil			
L6010	L1190244	M. RFC			
L6012	L1190246	M. RFC			
L6013	L1190189	M. RFC			

TP6004	Q5000036	TP-G	MK-1095
	R0062770B	VCO Case A	
	R0062780A	VCO Case Lid	
	R0122640	Spring Plate	
	R0122650	Spring Plate	
	R0123550	Leaf Spring	
144MHz ALC UNIT			
Symbol No.	Part No.	Description	Device
	F2892104A	Printed Circuit Board	
	C028924AA	PCB with Components	
Q9501	G1090564	IC	uPC358G
D9501	G2070001	Diode	1SS181 TE85R
D9502	G2070001	Diode	1SS181 TE85R
R9501	J24205223	RES. Chip	1/10W 22k ohm
R9502	J24205103	RES. Chip	1/10W 10k ohm
R9503	J24205473	RES. Chip	1/10W 47k ohm
R9504	J24205223	RES. Chip	1/10W 22k ohm
R9505	J24205000	RES. Chip	1/10W 0 ohm
R9506	J24205000	RES. Chip	1/10W 0 ohm
R9507	J24205000	RES. Chip	1/10W 0 ohm
R9508	J24205104	RES. Chip	1/10W 100k ohm
R9509	J24205223	RES. Chip	1/10W 22k ohm
R9510	J24205473	RES. Chip	1/10W 47k ohm
R9511	J24205473	RES. Chip	1/10W 47k ohm
C9501	K22170227	CAP. Chip	CH 50WV
C9503	K22170227	CAP. Chip	CH 50WV
C9504	K22170805	CAP. Chip	B 50WV
C9505	K22170805	CAP. Chip	B 50WV
	Q5000057	Lead Frame	
144MHz SHIFT UNIT			
Symbol No.	Part No.	Description	Device
	F2892107	Printed Circuit Board	
	F028927AA	PCB with Components	
Q9101	G3327127G	Transistor	2SC2712GR-TE85R
Q9102	G3327127G	Transistor	2SC2712GR-TE85R
Q9103	G3327127G	Transistor	2SC2712GR-TE85R
Q9104	G3327127G	Transistor	2SC2712GR-TE85R
Q9105	G3327127G	Transistor	2SC2712GR-TE85R
Q9106	G3327127G	Transistor	2SC2712GR-TE85R
R9101	J24205473	RES. Chip	1/10W 47k ohm
R9102	J24205473	RES. Chip	1/10W 47k ohm
R9103	J24205473	RES. Chip	1/10W 47k ohm
R9104	J24205222	RES. Chip	1/10W 2.2k ohm
R9105	J24205222	RES. Chip	1/10W 2.2k ohm
R9106	J24205222	RES. Chip	1/10W 2.2k ohm
R9107	J24205473	RES. Chip	1/10W 47k ohm

Q9025	G1
D6015	G1
D6016	G1
R6078	J0
R6079	J0
R6080	J0
R6081	J0
R6082	J0
R6083	J0
R6084	J0
R6087	J0
C6105	K1
C6106	K0
C6107	K0
C6108	K1
C6109	K1
C6110	K0
C6111	K1
C6112	K4
C6113	K0
C6114	K0
C6115	K0
C6117	K1
C6118	K0
C6119	K0
C6120	K1
C6171	K1
L6016	L11
L6017	L11
L6018	L11
L6019	L01
L6020	L00
L6021	L11
L6028	L00
L6029	L00
L6030	L00
FB6003	L91
FB6004	L91
	R00
Symbol No.	Pa
	F28
	C02
	C02
Q6501(10W)	G10
Q6501(25W)	G10

L6014	L1190187	M.RFC		R9108	J24205473	RES. Chip	1/10W 47k ohm	D6501	G20
L6015	L1190270	M.RFC		R9109	J24205473	RES. Chip	1/10W 47k ohm	D6502	G20
L6022	L1190270	M.RFC		R9110	J24205222	RES. Chip	1/10W 2.2k ohm	D6503	G20
L6023	L0020652	Coil		R9111	J24205222	RES. Chip	1/10W 2.2k ohm	D6504	G20
L6024	L1190270	M.RFC		R9112	J24205222	RES. Chip	1/10W 2.2k ohm	D6505	G20
L6025	L1190228	M.RFC		R9113	J24205000	RES. Chip	1/10W 0 ohm		
L6026	L1190257	M.RFC	8.2uH						
L6027	L1190257	M.RFC	8.2uH						
				C9101	K22170235	CAP. Chip	CH 50WV	R6501	J313
CV6001	L4020080	Helical Resonator		C9102	K22170235	CAP. Chip	CH 50WV	R6502(25W)	J313
				C9103	K22170235	CAP. Chip	CH 50WV	R6503	J012
FB6001	L9190001	Ferrite Beads		C9104	K22170235	CAP. Chip	CH 50WV	R6504	J022
				C9105	K22170235	CAP. Chip	CH 50WV	R6505	J022
J6001	P1090210	Connector		C9106	K22170235	CAP. Chip	CH 50WV		
J6002	P0090525	Connector						C6502	K101
J6003	P0090526	Connector						C6503	K131
J6004	P1090210	Connector						C6504	K401
J6005	P0090527	Connector						C6505	K101
					Q5000057	Lead Frame			

PARTS LIST

144MHz SUB VCO UNIT					
Symbol No.	Part No.	Description	Device		
	F2927000	Printed Circuit Board			
	C029270AA	PCB with Components			
	G3805070F	FET	2SK507F		
	G3333550	Transistor	2SC3355		
	G2090180	Diode	FC53M-5		
	G2090180	Diode	FC53M-5		
	J02225560	Carbon Film RES.	1/6W 56 ohm	UJ	
	J02225330	Carbon Film RES.	1/6W 33 ohm	UJ	
	J02225331	Carbon Film RES.	1/6W 330 ohm	UJ	
	J02225332	Carbon Film RES.	1/6W 3.3k ohm	UJ	
	J02225103	Carbon Film RES.	1/6W 10k ohm	UJ	
	J02225101	Carbon Film RES.	1/6W 100 ohm	UJ	
	J02225101	Carbon Film RES.	1/6W 100 ohm	UJ	
	C6506	Ceramic CAP.	F	50WV	0.01uF
	C6507	AL. Electro. CAP.		16WV	10uF
	C6508	Ceramic CAP.	B	50WV	0.001uF
	C6509	Ceramic CAP.	F	50WV	0.01uF
	C6510	AL. Electro. CAP.		16WV	10uF
	C6511	Ceramic CAP.	CH	50WV	18pF
	C6513	Ceramic CAP.	CH	50WV	33pF
	C6514	Ceramic CAP.	CK	50WV	1pF
	C6515(25W)	Ceramic CAP.	CH	50WV	4pF
	C6516	Ceramic CAP.	CH	50WV	8pF
	C6517	Ceramic CAP.	CK	50WV	1pF
	C6518	Ceramic CAP.	CH	50WV	18pF
	C6519	Ceramic CAP.	CH	50WV	18pF
	C6520	Ceramic CAP.	CH	50WV	18pF
	C6521	Ceramic CAP.	CH	50WV	18pF
	C6522	Ceramic CAP.	CH	50WV	18pF
	C6523(10W)	Ceramic CAP.	CH	50WV	6pF
	C6523(25W)	Ceramic CAP.	CH	50WV	10pF

50WV	100pF	K10176102	Ceramic CAP.	B	50WV	0.001uF	Q7023	G4800810	FET	3SK81
		K13179008	Ceramic CAP.	F	50WV	0.01uF	Q7024	G3090079	Transistor	BA1A4P
		K40129004	AL. Electro. CAP.		16WV	10uF	Q7025	G3090079	Transistor	BA1A4P
		K10176102	Ceramic CAP.	B	50WV	0.001uF	Q7026	G3207720Q	Transistor	2SB772Q
							Q7027	G3207720Q	Transistor	2SB772Q

PARTS LIST

Q7028	G3115280	Transistor	2SA1528	R7075	J02225101	Carbon Film RES.	1/6W	100 ohm	C7072	K4
Q7029	G3115280	Transistor	2SA1528	R7076	J02225471	Carbon Film RES.	1/6W	470 ohm	C7073	K1
Q7030	G3090079	Transistor	BA1A4P	R7077	J02225101	Carbon Film RES.	1/6W	100 ohm	C7074	K1
Q7031	G3304580C	Transistor	2SC458C	R7091	J01225225	Carbon Film RES.	1/6W	2.2M ohm	C7075	K1
Q7032	G3304580C	Transistor	2SC458C	R7092	J01225473	Carbon Film RES.	1/6W	47k ohm	C7076	K4
Q7033	G3802410G	FET	2SK241GR	R7093	J01225470	Carbon Film RES.	1/6W	47 ohm	C7077	K0
Q7034	G3090079	Transistor	BA1A4P	R7094	J01225102	Carbon Film RES.	1/6W	1k ohm	C7078	K0
D7003	G2090408	Diode	1SS270	R7095	J01225560	Carbon Film RES.	1/6W	56 ohm	C7080	K1
D7004	G2090027	Diode	1SS53	R7096	J02225473	Carbon Film RES.	1/6W	47k ohm	C7081	K1
D7005	G2090027	Diode	1SS53	R7097	J01225473	Carbon Film RES.	1/6W	47k ohm	C7082	K1
D7006	G2060004	Diode	1SS270TJ	R7098	J01225271	Carbon Film RES.	1/6W	270 ohm	C7083	K1
D7007	G2090027	Diode	1SS53	R7099	J01225560	Carbon Film RES.	1/6W	56 ohm	C7084	K1
D7008	G2015550	Diode	1S1555	R7100	J01225560	Carbon Film RES.	1/6W	56 ohm	C7085	K0
D7009	G2015550	Diode	1S1555	R7101	J02225680	Carbon Film RES.	1/6W	68 ohm	C7086	K0
D7010	G2090027	Diode	1SS53	R7102	J01225681	Carbon Film RES.	1/6W	680 ohm	C7088	K0
D7011	G2060004	Diode	1SS270TJ	R7103	J01225560	Carbon Film RES.	1/6W	56 ohm	C7089	K1
D7012	G2090027	Diode	1SS53	R7104	J02225331	Carbon Film RES.	1/6W	330 ohm	C7090	K0
D7013	G2090027	Diode	1SS53	R7106	J02225104	Carbon Film RES.	1/6W	100k ohm	C7091	K4
D7014	G2090408	Diode	1SS270	R7107	J02225471	Carbon Film RES.	1/6W	470 ohm	C7092	K1
D7015	G2090408	Diode	1SS270	R7108	J02225221	Carbon Film RES.	1/6W	220 ohm	C7094	K0
D7016	G2090408	Diode	1SS270	R7109	J02225560	Carbon Film RES.	1/6W	56 ohm	C7095	K1
D7017	G2090408	Diode	1SS270	R7110	J24205680	RES. Chip	1/10W	68 ohm	C7096	K4
D7018	G2090408	Diode	1SS270	R7111	J01225472	Carbon Film RES.	1/6W	4.7k ohm	C7097	K1
D7019	G2060004	Diode	1SS270TJ	R7112	J01225102	Carbon Film RES.	1/6W	1k ohm	C7098	K0
TH7001	G9090026	Thermistor		R7113	J24205101	RES. Chip	1/10W	100 ohm	C7099	K4
TH7002	G9090026	Thermistor		VR7001	J51745101	POT.	B	100 ohm	C7100	K1
TH7003	G9090026	Thermistor		VR7002	J51745102	POT.	B	1k ohm	C7101	K1
XF7001	H1102127	XTAL Filter	47L20A1	VR7003	J51745101	POT.	B	100 ohm	C7102	K4
				VR7004	J51745473	POT.	B	47k ohm		
				VR7005	J51745473	POT.	B	47k ohm		
				VR7006	J51745104	POT.	B	100k ohm		

R7008	J02225181	Carbon Film RES.	1/6W	180 ohm	UJ									
R7009	J02225330	Carbon Film RES.	1/6W	33 ohm	UJ	C7010	K12171102	Ceramic CAP.	E	50WV		C7103	K13	
R7010	J01225181	Carbon Film RES.	1/6W	180 ohm	PJ	C7011	K12171102	Ceramic CAP.	E	50WV		C7014	K13	
R7011	J02225101	Carbon Film RES.	1/6W	100 ohm	UJ	C7012	K12171102	Ceramic CAP.	E	50WV		C7017	K40	
R7012	J02225680	Carbon Film RES.	1/6W	68 ohm	UJ	C7013	K12171102	Ceramic CAP.	E	50WV				
R7013	J02225101	Carbon Film RES.	1/6W	100 ohm	UJ	C7014	K12171102	Ceramic CAP.	E	50WV		C7118	K13	
R7014	J02225222	Carbon Film RES.	1/6W	2.2k ohm	UJ	C7015	K19149025	Ceramic CAP.		25WV		C7119	K12	
R7015	J01225222	Carbon Film RES.	1/6W	2.2k ohm	PJ	C7016	K13179008	Ceramic CAP.	F	50WV		C7120	K13	
R7016	J01225101	Carbon Film RES.	1/6W	100 ohm	PJ	C7017	K13179008	Ceramic CAP.	F	50WV		C7121	K13	
R7017	J01225101	Carbon Film RES.	1/6W	100 ohm	PJ	C7018	K13179008	Ceramic CAP.	F	50WV		C7122	K13	
R7018	J01225682	Carbon Film RES.	1/6W	6.8k ohm	PJ	C7019	K05175150	Ceramic CAP.	RH	50WV		C7123	K13	
R7019	J01225223	Carbon Film RES.	1/6W	22k ohm	PJ	C7020	K02172050	Ceramic CAP.	CH	50WV		C7124	K13	
R7025	J02225221	Carbon Film RES.	1/6W	220 ohm	UJ	C7024	K13179014	Ceramic CAP.	F	50WV		C7125	K00	
R7026	J02225223	Carbon Film RES.	1/6W	22k ohm	UJ	C7025	K40129004	AL. Electro. CAP.		16WV		C7126	K12	
R7027	J02225682	Carbon Film RES.	1/6W	6.8k ohm	UJ							C7127	K12	
R7028	J02225101	Carbon Film RES.	1/6W	100 ohm	UJ	C7031	K13179014	Ceramic CAP.	F	50WV		C7128	K40	
R7029	J02225103	Carbon Film RES.	1/6W	10k ohm	UJ	C7032	K13179014	Ceramic CAP.	F	50WV				
R7030	J01225223	Carbon Film RES.	1/6W	22k ohm	PJ	C7033	K00175470	Ceramic CAP.	SL	50WV		C7129	K13	
R7031	J02225103	Carbon Film RES.	1/6W	10k ohm	UJ	C7034	K00175101	Ceramic CAP.	SL	50WV		C7130	K13	
R7032	J02225103	Carbon Film RES.	1/6W	10k ohm	UJ	C7035	K12171102	Ceramic CAP.	E	50WV		C7131	K13	
R7033	J02245471	Carbon Film RES.	1/4W	470 ohm	SJ	C7036	K12171102	Ceramic CAP.	E	50WV		C7132	K00	
R7034	J02245471	Carbon Film RES.	1/2W	470 ohm	TJ	C7037	K40109002	AL. Electro. CAP.		10WV		C7133	K12	
R7037	J02225331	Carbon Film RES.	1/6W	330 ohm	UJ							C7134	K12	
R7039	J02225150	Carbon Film RES.	1/6W	15 ohm	UJ	C7038	K22170805	CAP. Chip.	B	50WV		C7135	K12	
R7040	J02225391	Carbon Film RES.	1/6W	390 ohm	UJ	C7040	K22170805	CAP. Chip.	B	50WV		C7136	K12	
R7041	J02225332	Carbon Film RES.	1/6W	3.3k ohm	UJ	C7041	K40129004	AL. Electro. CAP.		16WV		C7137	K12	
R7042	J02225103	Carbon Film RES.	1/6W	10k ohm	UJ							C7138	K12	
R7043	J02225101	Carbon Film RES.	1/6W	100 ohm	UJ	C7042	K12171102	Ceramic CAP.	E	50WV		C7139	K12	
R7044	J02225560	Carbon Film RES.	1/6W	56 ohm	UJ	C7043	K40129004	AL. Electro. CAP.		16WV		C7140	K12	
R7045	J01225332	Carbon Film RES.	1/6W	3.3k ohm	PJ							C7141	K12	
R7046	J02225103	Carbon Film RES.	1/6W	10k ohm	UJ	C7047	K02179001	Ceramic CAP.	CK	50WV		C7144	K05	
R7047	J02225331	Carbon Film RES.	1/6W	330 ohm	UJ	C7048	K12171102	Ceramic CAP.	E	50WV		C7145	K05	
R7048	J01225102	Carbon Film RES.	1/6W	1k ohm	PJ	C7049	K12171102	Ceramic CAP.	E	50WV		C7146	K22	
R7049	J02225221	Carbon Film RES.	1/6W	220 ohm	UJ	C7050	K05172020	Ceramic CAP.	RK	50WV		C7147	K22	
R7050	J02225221	Carbon Film RES.	1/6W	220 ohm	UJ	C7051	K12171102	Ceramic CAP.	E	50WV		C7148	K22	
R7051	J01225473	Carbon Film RES.	1/6W	47k ohm	PJ	C7052	K12171102	Ceramic CAP.	E	50WV		C7149	K22	
R7052	J02225331	Carbon Film RES.	1/6W	330 ohm	UJ	C7053	K13179010	Ceramic CAP.	F	50WV		C7150	K22	
R7053	J02225473	Carbon Film RES.	1/6W	47k ohm	UJ	C7055	K13179008	Ceramic CAP.	F	50WV		C7152	K22	
R7054	J02225152	Carbon Film RES.	1/6W	1.5k ohm	UJ	C7056	K00173080	Ceramic CAP.	SL	50WV		C7153	K22	
R7055	J02225102	Carbon Film RES.	1/6W	1k ohm	UJ	C7057	K00175220	Ceramic CAP.	SL	50WV		C7154	K13	
R7056	J02225102	Carbon Film RES.	1/6W	1k ohm	UJ	C7058	K05175220	Ceramic CAP.	RH	50WV		C7155	K19	
R7060	J01225101	Carbon Film RES.	1/6W	100 ohm	PJ	C7060	K00175470	Ceramic CAP.	SL	50WV				
R7061	J01225681	Carbon Film RES.	1/6W	680 ohm	PJ	C7061	K13179014	Ceramic CAP.	F	50WV		TC7002	K910	
R7062	J01225473	Carbon Film RES.	1/6W	47k ohm	PJ	C7062	K40109001	AL. Electro. CAP.		10WV		TC7003	K910	
R7063	J01225473	Carbon Film RES.	1/6W	47k ohm	PJ									
R7064	J01225560	Carbon Film RES.	1/6W	56 ohm	PJ	C7063	K00173100	Ceramic CAP.	SL	50WV		T7006	L002	
R7065	J02225473	Carbon Film RES.	1/6W	47k ohm	UJ	C7064	K00175220	Ceramic CAP.	SL	50WV		T7007	L002	
R7066	J02225333	Carbon Film RES.	1/6W	33k ohm	UJ	C7065	K00175121	Ceramic CAP.	SL	50WV		T7008	L002	
R7067	J01225101	Carbon Film RES.	1/6W	100 ohm	PJ	C7066	K12171102	Ceramic CAP.	E	50WV		T7009	L002	
R7068	J01225473	Carbon Film RES.	1/6W	47k ohm	PJ	C7067	K40179013	AL. Electro. CAP.		50WV		T7010	L002	
R7069	J02225331	Carbon Film RES.	1/6W	330 ohm	UJ							T7011	L002	
R7070	J02225180	Carbon Film RES.	1/6W	18 ohm	UJ	C7068	K70147105	Tantalum CAP.		25WV		T7012	L002	
R7071	J02225331	Carbon Film RES.	1/6W	330 ohm	UJ	C7069	K19149021	Ceramic CAP.		25WV		T7019	L002	
R7072	J01225479	Carbon Film RES.	1/6W	4.7 ohm	PJ	C7070	K12171102	Ceramic CAP.	E	50WV		T7020	L002	
R7074	J01225331	Carbon Film RES.	1/6W	330 ohm	PJ	C7071	K00173070	Ceramic CAP.	SL	50WV		T7021	L002	

PARTS LIST

UJ	C7072	K00173070	Ceramic CAP.	SL	50WV	7pF	T7022	L0021165	Coil	
UJ	C7073	K13179008	Ceramic CAP.	F	50WV	0.01uF	T7023	L0021736	Coil	
UJ	C7074	K13179008	Ceramic CAP.	F	50WV	0.01uF	T7024	L0021736	Coil	
PJ	C7075	K13179008	Ceramic CAP.	F	50WV	0.01uF				
PJ	C7076	K40129004	AL. Electro. CAP.		16WV	10uF	L7006	L1190242	M.RFC	0.47uH
PJ							L7007	L1190254	M.RFC	0.47uH
PJ	C7077	K05172060	Ceramic CAP.	RH	50WV	6pF	L7008	L1190254	M.RFC	0.47uH
PJ	C7078	K05172020	Ceramic CAP.	RK	50WV	2pF	L7009	L1190242	M.RFC	0.47uH
UJ	C7080	K13179008	Ceramic CAP.	F	50WV	0.01uF	L7012	L1190254	M.RFC	4.7uH
PJ	C7081	K13179008	Ceramic CAP.	F	50WV	0.01uF	L7013	L1190250	M.RFC	2.2uH
PJ	C7082	K13179008	Ceramic CAP.	F	50WV	0.01uF	L7014	L1190250	M.RFC	2.2uH
PJ	C7083	K13179008	Ceramic CAP.	F	50WV	0.01uF	L7015	L1190270	M.RFC	100uH
PJ	C7084	K12171102	Ceramic CAP.	E	50WV	0.001uF	L7016	L1190252	M.RFC	3.3uH
UJ	C7085	K05173080	Ceramic CAP.	RH	50WV	8pF	L7017	L0020886	Coil	
PJ	C7086	K00172050	Ceramic CAP.	SL	50WV	5pF	L7018	L0021359	Coil	
PJ	C7088	K00175470	Ceramic CAP.	SL	50WV	47pF	L7019	L0020474	Coil	
UJ	C7089	K12171102	Ceramic CAP.	E	50WV	0.001uF	L7020	L0020852	Coil	
UJ	C7090	K00175470	Ceramic CAP.	SL	50WV	47pF	L7021	L0021359	Coil	
UJ	C7091	K40129004	AL. Electro. CAP.		16WV	10uF	L7025	L1190246	M.RFC	1uH
UJ							L7026	L1190270	M.RFC	100uH
UJ	C7092	K12171102	Ceramic CAP.	E	50WV	0.001uF	L7027	L1190244	M.RFC	0.68uH
	C7094	K05175150	Ceramic CAP.	RH	50WV	15pF	L7028	L1190289	M.RFC	3.3uH
PJ	C7095	K12171102	Ceramic CAP.	E	50WV	0.001uF	L7029	L1190246	M.RFC	1uH
PJ	C7096	K40129004	AL. Electro. CAP.		16WV	10uF				
	C7097	K12171102	Ceramic CAP.	E	50WV	0.001uF	CV7002	L4020087	Helical Resonator	
	C7098	K05172050	Ceramic CAP.	RH	50WV	5pF	CV7003	L4020081	Helical Resonator	
	C7099	K40129004	AL. Electro. CAP.		16WV	10uF	CV7004	L4020081	Helical Resonator	
	C7100	K12171102	Ceramic CAP.	E	50WV	0.001uF	FB7003	L9190001	Ferrite Beards	
	C7101	K12171102	Ceramic CAP.	E	50WV	0.001uF	FB7004	L9190001	Ferrite Beards	
	C7102	K40129004	AL. Electro. CAP.		16WV	10uF				
	C7103	K13179008	Ceramic CAP.	F	50WV	0.01uF	J7001	P0090527	Connector	
	C7104	K12171102	Ceramic CAP.	E	50WV	0.001uF	J7002	P0090530	Connector	
	C7105	K40129004	AL. Electro. CAP.		16WV	10uF	J7004	P0090525	Connector	
							J7005	P1090210	Connector	
							J7006	P0090527	Connector	
0.001uF							J7009	P1090210	Connector	
0.001uF							J7010	P1090210	Connector	
0.001uF							J7013	P0090524	Connector	
0.001uF							J7014	P0090525	Connector	
0.001uF							J7015	P0090525	Connector	
0.1uF							J7016	P0090524	Connector	
0.01uF							J7017	P0090524	Connector	
0.01uF										
0.01uF										
0.01uF										
15pF										
5pF										
0.0047uF										
	C7106	K00173100	Ceramic CAP.	SL	50WV	10nF				

10uF	7136	K12171102	Ceramic CAP.	E	50WV	0.001uF	TP7001	Q5000036	TP-G	MK-1095
0.0047uF	7137	K12171102	Ceramic CAP.	E	50WV	0.001uF				
0.0047uF	7138	K40129004	AL. Electro. CAP.		16WV	10uF		R0110610	Spring Board	
47pF	7139	K13179008	Ceramic CAP.	F	50WV	0.01uF		R0122900	Shield Plate	
100pF	7140	K13179008	Ceramic CAP.	F	50WV	0.01uF		R0056640	PLL IF Shield	
0.001uF	7141	K13179008	Ceramic CAP.	F	50WV	0.01uF		R0121610B	Shield Plate	
0.001uF	7142	K00172020	Ceramic CAP.	SL	50WV	2pF				
47uF	7143	K12172102	Ceramic CAP.	E	50WV	0.001uF				
	7144	K12172102	Ceramic CAP.	E	50WV	0.001uF				
0.001uF	7145	K12172102	Ceramic CAP.	E	50WV	0.001uF	Symbol No.	Part No.	VCO UNIT Description	Device
0.001uF	7146	K12172102	Ceramic CAP.	E	50WV	0.001uF		F2889103	Printed Circuit Board	
10uF	7147	K12172102	Ceramic CAP.	E	50WV	0.001uF		C028893AA	PCB with Components	
0.001uF	7148	K12172102	Ceramic CAP.	E	50WV	0.001uF				
10uF	7149	K12172102	Ceramic CAP.	E	50WV	0.001uF	Q7401	G3801250	FET	2SK125
	7150	K12172102	Ceramic CAP.	E	50WV	0.001uF	Q7402	G3333550	Transistor	2SC3355
1pF	7151	K05175180	Ceramic CAP.	RH	50WV	18pF				
0.001uF	7152	K05175100	Ceramic CAP.	RH	50WV	10pF	D7401	G2090271	Diode	1T33
0.001uF	7153	K22170805	CAP. Chip	B	50WV	0.001uF	D7402	G2090271	Diode	1T33
2pF	7154	K22170805	CAP. Chip	B	50WV	0.001uF				
0.001uF	7155	K22170235	CAP. Chip	CH	50WV	100pF	R7401	J02225102	Carbon Film RES.	1/6W 1k ohm UJ
0.001uF	7156	K22170235	CAP. Chip	CH	50WV	100pF	R7402	J02225330	Carbon Film RES.	1/6W 33 ohm UJ
0.022uF	7157	K22170235	CAP. Chip	CH	50WV	100pF	R7403	J02225221	Carbon Film RES.	1/6W 220 ohm UJ
0.01uF	7158	K22170235	CAP. Chip	CH	50WV	100pF	R7404	J02225332	Carbon Film RES.	1/6W 3.3k ohm UJ
8pF	7159	K22141809	CAP. Chip	B	25WV	0.1uF	R7405	J02225103	Carbon Film RES.	1/6W 10k ohm UJ
22pF	7160	K13179008	Ceramic CAP.	F	50WV	0.01uF	R7406	J02225101	Carbon Film RES.	1/6W 100 ohm UJ
22pF	7161	K19149021	Ceramic CAP.		25WV	0.047uF	R7407	J02225101	Carbon Film RES.	1/6W 100 ohm UJ
47pF										
0.0047uF	7162	K91000059	Variable CAP.	4pF			C7401	K19149021	Ceramic CAP.	25WV 0.047uF
100uF	7163	K91000028	Variable CAP.	10pF			C7402	K12171102	Ceramic CAP.	E 50WV 0.001uF
	7164	L0021358	Coil				C7403	K05173080	Ceramic CAP.	RH 50WV 8pF
10pF	7165	L0021736	Coil				C7404	K12171102	Ceramic CAP.	E 50WV 0.001uF
22pF	7166	L0021740	Coil				C7405	K40109015	AL. Electro. CAP.	10WV 100uF
120pF	7167	L0021740	Coil				C7406	K05173070	Ceramic CAP.	RH 50WV 7pF
0.001uF	7168	L0021740	Coil				C7407	K05173080	Ceramic CAP.	RH 50WV 8pF
1uF	7169	L0021718	Coil				C7408	K02172059	Ceramic CAP.	CK 50WV 0.5pF
	7170	L0021718	Coil				C7409	K12171102	Ceramic CAP.	E 50WV 0.001uF
1uF	7171	L0021740	Coil							
0.047uF	7172	L0021740	Coil							
0.001uF	7173	L0021740	Coil							
7pF	7174	L0021740	Coil				TC7401	K91000055	Variable CAP.	6pF

PARTS LIST

L7401	L1190242	M. RFC	0.47uH
L7402	L1190242	M. RFC	0.47uH
L7403	F2896000		
L7404	L0021520	Coil	
L7405	L1190242	M. RFC	0.47uH
FB7401	L9190001	Ferrite Beads	
FB7402	L9190001	Ferrite Beads	
TP7401	Q5000036	TP-G	MK-1095
TP7402	Q5000036	TP-G	MK-1095
TP7403	Q5000036	TP-G	MK-1095
	R0062770B	VCO Case A	
	R0062780A	VCO Case Lid	
	R0121190	PCB Holder	
430MHz ALC UNIT			
Symbol No.	Part No.	Description	Device
	F2892105A	Printed Circuit Board	
	C028925AA	PCB with Components	
Q9601	G1090564	IC	uPC358G
D9601	G2070001	Diode	1SS181 TE85R
D9602	G2070001	Diode	1SS181 TE85R
R9601	J24205223	RES. Chip	1/10W 22k ohm
R9602	J24205103	RES. Chip	1/10W 10k ohm
R9603	J24205473	RES. Chip	1/10W 47k ohm
R9604	J24205223	RES. Chip	1/10W 22k ohm
R9605	J24205000	RES. Chip	1/10W 0 ohm
R9606	J24205000	RES. Chip	1/10W 0 ohm
R9607	J24205000	RES. Chip	1/10W 0 ohm
R9608	J24205104	RES. Chip	1/10W 100k ohm
R9609	J24205223	RES. Chip	1/10W 22k ohm
R9610	J24205473	RES. Chip	1/10W 47k ohm
R9611	J24205473	RES. Chip	1/10W 47k ohm
C9601	K22170227	CAP. Chip	CH 50WV 47pF
C9603	K22170227	CAP. Chip	CH 50WV 47pF
C9604	K22170805	CAP. Chip	B 50WV 0.001uF
C9605	K22170805	CAP. Chip	B 50WV 0.001uF
	Q5000057	Lead Frame	
430MHz LOCAL UNIT			
Symbol No.	Part No.	Description	Device
	F2919101	Printed Circuit Board	
	C029191AA	PCB with Components	

C7706	K22170319	CAP. Chip	UJ 50WV 33pF
C7707	K22170805	CAP. Chip	B 50WV 0.001uF
C7708	K40109015	AL. Electro. CAP.	10WV 100uF
C7709	K22170813	CAP. Chip	B 50WV 0.0047uF
C7710	K22170202	CAP. Chip	CH 50WV 1pF
C7711	K22171004	CAP. Chip	F 50WV 0.001uF
C7712	K40109015	AL. Electro. CAP.	10WV 100uF
C7713	K22170813	CAP. Chip	B 50WV 0.0047uF
C7714	K22170813	CAP. Chip	B 50WV 0.0047uF
C7715	K22171004	CAP. Chip	F 50WV 0.001uF
C7716	K22141809	CAP. Chip	B 25WV 0.1uF
C7717	K22170813	CAP. Chip	B 50WV 0.0047uF
C7718	K22170813	CAP. Chip	B 50WV 0.0047uF
C7719	K22170805	CAP. Chip	B 50WV 0.001uF
C7720	K22171004	CAP. Chip	F 50WV 0.001uF
C7721	K78120009	Tantalum CAP. Chip	16WV 1uF
C7722	K78140009	Tantalum CAP. Chip	25WV 0.1uF
C7724	K22141809	CAP. Chip	B 25WV 0.1uF
TC7701	K91000114	Variable CAP.	6pF
T7701	L0021358	Coil	
L7702	L1190348	M. RFC	
	Q5000057	Lead Frame	
PLL IC UNIT			
Symbol No.	Part No.	Description	Device
	F2919102	Printed Circuit Board	
	C029192AA	PCB with Components	
Q7601	G1090582	IC	JLC1007P
Q7602	G1090829	IC	MB503
D7601	G2090185	Diode	HZ5C2
R7601	J24205222	RES. Chip	1/10W 2.2k ohm
R7602	J24205103	RES. Chip	1/10W 10k ohm
R7603	J24205103	RES. Chip	1/10W 10k ohm
R7604	J24205221	RES. Chip	1/10W 220 ohm
C7601	K22171004	CAP. Chip	F 50WV 0.001uF
C7602	K22170813	CAP. Chip	B 50WV 0.0047uF
C7603	K22171004	CAP. Chip	F 50WV 0.001uF
C7604	K40129012	AL. Electro. CAP.	16WV 100uF
C7605	K22171004	CAP. Chip	F 50WV 0.001uF
C7606	K22141809	CAP. Chip	B 25WV 0.1uF

	C021
	C021
	C021
	C028
	C028
	C028
Q8001	G380
Q8002	G333
Q8003	G109
Q8004	G109
Q8005	G109
Q8006	G109
Q8007	G330
Q8008	G109
Q8009	G330
Q8010	G380
Q8011	G330
Q8012	G330
Q8013	G332
Q8014	G330
Q8015	G109
D8001	G209
D8002	G209
D8003	G209
D8004	G209
D8005	G209
D8006	G209
D8007	G209
D8008	G209
D8010	G209

Q7701	G3802100G	FET	2SK210GR
Q7702	G3803020G	FET	2SK302GR
Q7703	G1090829	IC	MB503
Q7704	G1090739	IC	MC145163SL
Q7705	G3327120G	Transistor	2SC2712GR
D7701	G2090108	Diode	1SV68
D7702	G2090188	Diode	HZ5C1
R7701	J24205474	RES. Chip	1/10W 470k ohm
R7702	J24205221	RES. Chip	1/10W 220 ohm
R7703	J24205101	RES. Chip	1/10W 100 ohm
R7704	J24205471	RES. Chip	1/10W 470 ohm
R7705	J24205471	RES. Chip	1/10W 470 ohm
R7706	J24205221	RES. Chip	1/10W 220 ohm
R7707	J24205222	RES. Chip	1/10W 2.2k ohm
R7708	J24205471	RES. Chip	1/10W 470 ohm
R7709	J24205473	RES. Chip	1/10W 47k ohm
R7710	J24205221	RES. Chip	1/10W 220 ohm
R7711	J24205222	RES. Chip	1/10W 2.2k ohm
R7712	J24205000	RES. Chip	1/10W 0 ohm
R7713	J24205101	RES. Chip	1/10W 100 ohm
R7714	J01225104	Carbon Film RES.	1/6W 100k ohm
C7701	K22170305	CAP. Chip	UJ 50WV 4pF
C7702	K22170307	CAP. Chip	UJ 50WV 6pF
C7703	K22170304	CAP. Chip	UJ 50WV 3pF
C7704	K22170211	CAP. Chip	CH 50WV 10pF
C7705	K22170309	CAP. Chip	UJ 50WV 8pF

Symbol No.	Part No.	Description	Device
	F2888103A	Printed Circuit Board	
	C028883AA	PCB with Components: Vers. A1,A2 w/o 430MHz SHIFT UNIT,	
	C028883AB	PCB with Components: Vers. B1,B2,B3 w/o 430MHz SHIFT UNIT,	
	C028883AC	PCB with Components: Vers. C1,C2,C3 w/o 430MHz SHIFT UNIT,	
	C028883AD	PCB with Components: Vers. F w/o 430MHz SHIFT UNIT,	

R8011	J0222
R8012	G2094
X8001	H0102
R8001	J0122
R8002	J0122
R8003	J0122
R8004	J0222
R8005	J0122
R8006	J0222
R8007	J0222
R8008	J0122
R8009	J0222
R8010	J0222
R8011	J0222
R8012	J0122
R8013	J0222
R8014	J0222
R8015	J0222
R8016	J0222
R8017	J0122
R8018	J0122
R8019	J0222
R8020	J0222
R8021	J0222
R8022	J0222
R8023	J0222
R8024	J0222
R8025	J0222
R8026	J0222

PARTS LIST

22pF	C028883AE	PCB with Components: Vers. H1,H2,H3 w/o 430MHz SHIFT UNIT,	R8027	J01225470	Carbon Film RES.	1/6W 47 ohm	PJ
0.001uF			R8028	J02225560	Carbon Film RES.	1/6W 56 ohm	UJ
100uF			R8030	J02225332	Carbon Film RES.	1/6W 3.3k ohm	UJ
0.0047uF			R8031	J02225222	Carbon Film RES.	1/6W 2.2k ohm	UJ
1pF	C028883AF	PCB with Components:	R8032	J02225104	Carbon Film RES.	1/6W 100k ohm	UJ
0.01uF			R8033	J01225472	Carbon Film RES.	1/6W 4.7k ohm	PJ

100uF		Vers. A1,A2 w/ 430MHz SHIFT UNIT,		R8034	J02225223	Carbon Film RES.	1/6W	22k ohm	UJ	
0.0047uF				R8035	J01225223	Carbon Film RES.	1/6W	22k ohm	PJ	
0.0047uF				R8036	J02225681	Carbon Film RES.	1/6W	680 ohm	UJ	
0.01uF	C028883AG	PCB with Components: Vers. B1,B2,B3 w/ 430MHz SHIFT UNIT,		R8037	J02225103	Carbon Film RES.	1/6W	10k ohm	UJ	
0.1uF				R8038	J02225272	Carbon Film RES.	1/6W	2.7k ohm	UJ	
0.0047uF				R8039	J02225470	Carbon Film RES.	1/6W	47 ohm	UJ	
0.0047uF				R8040	J01225150	Carbon Film RES.	1/6W	15 ohm	PJ	
0.001uF	C028883AH	PCB with Components: Vers. C1,C2,C3 w/ 430MHz SHIFT UNIT,		R8041	J01225820	Carbon Film RES.	1/6W	82 ohm	PJ	
0.01uF				R8042	J01225680	Carbon Film RES.	1/6W	68 ohm	PJ	
1uF				R8043	J01225820	Carbon Film RES.	1/6W	82 ohm	PJ	
0.47uF				R8044	J02225101	Carbon Film RES.	1/6W	100 ohm	UJ	
	C028883AJ	PCB with Components: Vers. F w/ 430MHz SHIFT UNIT,		R8045	J02225331	Carbon Film RES.	1/6W	330 ohm	UJ	
				R8046	J02225682	Carbon Film RES.	1/6W	6.8k ohm	UJ	
				R8047	J02225223	Carbon Film RES.	1/6W	22k ohm	UJ	
				R8048	J02225150	Carbon Film RES.	1/6W	15 ohm	UJ	
				R8049	J02225101	Carbon Film RES.	1/6W	100 ohm	UJ	
				R8050	J02225102	Carbon Film RES.	1/6W	1k ohm	UJ	
	C028883AK	PCB with Components: Vers. H1,H2,H3 w/ 430MHz SHIFT UNIT,		C8001	K70167474	Tantalum CAP.		35WV	0.47uF	
				C8002	K19149021	Ceramic CAP.		25WV	0.047uF	
				C8003	K12171102	Ceramic CAP.	E	50WV	0.001uF	
				C8004	K05175150	Ceramic CAP.	RH	50WV	15pF	
				C8005	K12171102	Ceramic CAP.	E	50WV	0.001uF	
				C8006	K40109001	AL. Electro. CAP.		10WV	100uF	
	G3805070F	FET	2SK705F	C8007	K02175120	Ceramic CAP.	CH	50WV	12pF	
	G3333550	Transistor	2SC3355	C8008	K05173080	Ceramic CAP.	RH	50WV	8pF	
	G1090795	IC	MB504	C8009	K02172059	Ceramic CAP.	CK	50WV	0.5pF	
	G1090707	IC	MC145156P	C8010	K13179014	Ceramic CAP.	F	50WV	0.0047uF	
	G1090796	IC	MB505-16	C8011	K13179014	Ceramic CAP.	F	50WV	0.0047uF	
	G1090247	IC	TC9122P	C8012	K00172020	Ceramic CAP.	SL	50WV	2pF	
	G3304580C	Transistor	2SC458C	C8013	K00173070	Ceramic CAP.	SL	50WV	7pF	
	G1090473	IC	TC5081AP	C8014	K12171102	Ceramic CAP.	E	50WV	0.001uF	
	G3305350B	Transistor	2SC535B	C8015	K13179014	Ceramic CAP.	F	50WV	0.0047uF	
	G3802410G	FET	2SK241GR	C8016	K19149025	Ceramic CAP.		25WV	0.1uF	
	G3304580C	Transistor	2SC458C	C8017	K12171102	Ceramic CAP.	E	50WV	0.001uF	
	G3305350B	Transistor	2SC535B	C8018	K12171102	Ceramic CAP.	E	50WV	0.001uF	
	G3324071	Transistor	2SC2407A	C8019	K40109002	AL. Electro. CAP.		10WV	47uF	
	G3305350B	Transistor	2SC535B	C8020	K19149025	Ceramic CAP.		25WV	0.1uF	
	G1090084	IC	uPC78L05	C8021	K13179008	Ceramic CAP.	F	50WV	0.01uF	
				C8022	K00175220	Ceramic CAP.	SL	50WV	22pF	
	G2090180	Diode	FC53M-5	C8023	K00175220	Ceramic CAP.	SL	50WV	22pF	
	G2090180	Diode	FC53M-5	C8024	K13179008	Ceramic CAP.	F	50WV	0.01uF	
		See Model Chart		C8025	K00172020	Ceramic CAP.	SL	50WV	2pF	
		See Model Chart		C8026	K00173070	Ceramic CAP.	SL	50WV	7pF	
		See Model Chart		C8027	K12171102	Ceramic CAP.	E	50WV	0.001uF	
		See Model Chart		C8028	K19149025	Ceramic CAP.		25WV	0.1uF	
		See Model Chart		C8029	K13179014	Ceramic CAP.	F	50WV	0.0047uF	
		See Model Chart		C8030	K12171102	Ceramic CAP.	E	50WV	0.001uF	
		See Model Chart		C8031	K12171102	Ceramic CAP.	E	50WV	0.001uF	
		See Model Chart		C8032	K19149025	Ceramic CAP.		25WV	0.1uF	
	G2090384	Diode	HZ7C2	C8033	K19149025	Ceramic CAP.		25WV	0.1uF	
				C8034	K40109001	AL. Electro. CAP.		10WV	100uF	
	H0102818	XTAL	HC-49T 61.46833MHZ	C8035	K13179014	Ceramic CAP.	F	50WV	0.0047uF	
				C8036	K13179014	Ceramic CAP.	F	50WV	0.0047uF	
	J01225561	Carbon Film RES.	1/6W 560 ohm	PJ	C8037	K40129004	AL. Electro. CAP.	16WV	10uF	
	J01225471	Carbon Film RES.	1/6W 470 ohm	PJ	C8038	K12171102	Ceramic CAP.	E	50WV	0.001uF
	J01225102	Carbon Film RES.	1/6W 1k ohm	PJ	C8039	K13179008	Ceramic CAP.	F	50WV	0.01uF
	J02225222	Carbon Film RES.	1/6W 2.2k ohm	UJ	C8040	K13179008	Ceramic CAP.	F	50WV	0.01uF
	J01225330	Carbon Film RES.	1/6W 33 ohm	PJ						
	J02225221	Carbon Film RES.	1/6W 220 ohm	UJ						
	J02225332	Carbon Film RES.	1/6W 3.3k ohm	UJ						

J01225103	Carbon Film RES.	1/6W	10k ohm	PJ	C8041	K40179011	AL. Electro. CAP.	50WV	3.3uF
J02225101	Carbon Film RES.	1/6W	100 ohm	UJ					
J02225101	Carbon Film RES.	1/6W	100 ohm	UJ	C8042	K00173070	Ceramic CAP.	SL	50WV 7pF
J02225560	Carbon Film RES.	1/6W	56 ohm	UJ	C8043	K13179008	Ceramic CAP.	F	50WV 0.01uF
J01225222	Carbon Film RES.	1/6W	2.2k ohm	PJ	C8044	K00172020	Ceramic CAP.	SL	50WV 2pF
J02225560	Carbon Film RES.	1/6W	56 ohm	UJ	C8045	K13179008	Ceramic CAP.	F	50WV 0.01uF
J02225222	Carbon Film RES.	1/6W	2.2k ohm	UJ	C8046	K00175470	Ceramic CAP.	SL	50WV 47pF
J02225104	Carbon Film RES.	1/6W	100k ohm	UJ	C8047	K13179014	Ceramic CAP.	F	50WV 0.0047uF
J02225471	Carbon Film RES.	1/6W	470 ohm	UJ	C8048	K00175220	Ceramic CAP.	SL	50WV 2pF
J01225101	Carbon Film RES.	1/6W	100 ohm	PJ	C8049	K19149015	Ceramic CAP.		25WV 0.015uF
J01225560	Carbon Film RES.	1/6W	56 ohm	PJ	C8050	K05172030	Ceramic CAP.	RJ	50WV 3pF
J02225331	Carbon Film RES.	1/6W	330 ohm	UJ	C8051	K05175470	Ceramic CAP.	RH	50WV 47pF
J02225682	Carbon Film RES.	1/6W	6.8k ohm	UJ	C8052	K05175560	Ceramic CAP.	RH	50WV 56pF
J02225223	Carbon Film RES.	1/6W	22k ohm	UJ	C8053	K13179008	Ceramic CAP.	F	50WV 0.01uF
J02225560	Carbon Film RES.	1/6W	56 ohm	UJ	C8054	K05175150	Ceramic CAP.	RH	50WV 15pF
J02225471	Carbon Film RES.	1/6W	470 ohm	UJ	C8055	K05175470	Ceramic CAP.	RH	50WV 47pF
J02225471	Carbon Film RES.	1/6W	470 ohm	UJ	C8056	K22171004	CAP. Chip	F	50WV 0.01uF
J02225223	Carbon Film RES.	1/6W	22k ohm	UJ	C8057	K13179014	Ceramic CAP.	F	50WV 0.0047uF
J02225682	Carbon Film RES.	1/6W	6.8k ohm	UJ	C8058	K05172030	Ceramic CAP.	RJ	50WV 3pF

PARTS LIST

C8060	K12171102	Ceramic CAP.	E	50WV	0.001uF				
C8061	K13179008	Ceramic CAP.	F	50WV	0.01uF	Q9201	G3327127G	Transistor	2SC2712GR-TE85R
C8062	K40129004	AL. Electro. CAP.		16WV	10uF	Q9202	G3327127G	Transistor	2SC2712GR-TE85R
						Q9203	G3327127G	Transistor	2SC2712GR-TE85R
C8063	K13179008	Ceramic CAP.	F	50WV	0.01uF	Q9204	G3327127G	Transistor	2SC2712GR-TE85R
C8064	K13179008	Ceramic CAP.	F	50WV	0.01uF	Q9205	G3327127G	Transistor	2SC2712GR-TE85R
C8065	K05175120	Ceramic CAP.	RH	50WV	12pF	Q9206	G3327127G	Transistor	2SC2712GR-TE85R
C8066	K05172030	Ceramic CAP.	RJ	50WV	3pF				
C8067	K13179008	Ceramic CAP.	F	50WV	0.01uF	R9201	J24205473	RES. Chip	1/10W 47k ohm
C8068	K40109002	AL. Electro. CAP.		10WV	47uF	R9202	J24205473	RES. Chip	1/10W 47k ohm
						R9203	J24205473	RES. Chip	1/10W 47k ohm
C8069	K12171102	Ceramic CAP.	E	50WV	0.001uF	R9204	J24205222	RES. Chip	1/10W 2.2k ohm
C8070	K12171102	Ceramic CAP.	E	50WV	0.001uF	R9205	J24205222	RES. Chip	1/10W 2.2k ohm
C8071	K40179016	AL. Electro. CAP.		50WV	0.1uF	R9206	J24205222	RES. Chip	1/10W 2.2k ohm
						R9207	J24205473	RES. Chip	1/10W 47k ohm
C8072	K70167154	Tantalum CAP.		35WV	0.15uF	R9208	J24205473	RES. Chip	1/10W 47k ohm
C8073	K19149021	Ceramic CAP.		25WV	0.047uF	R9209	J24205473	RES. Chip	1/10W 47k ohm
C8074	K12171102	Ceramic CAP.	E	50WV	0.001uF	R9210	J24205222	RES. Chip	1/10W 2.2k ohm

Symbol No.	Part No.	Description	Device
C8075	K13179008	Ceramic CAP.	
C8076	K22171229	CAP. Chip	CH 50WV 56pF
C8077	K22171229	CAP. Chip	CH 50WV 56pF
C8078	K22171229	CAP. Chip	CH 50WV 56pF
C8079	K22171229	CAP. Chip	CH 50WV 56pF
C8080	K22171229	CAP. Chip	CH 50WV 56pF
C8081	K22171229	CAP. Chip	CH 50WV 56pF
C8082	K22171229	CAP. Chip	CH 50WV 56pF
C8083	K22171229	CAP. Chip	CH 50WV 56pF
C8084	K22171229	CAP. Chip	CH 50WV 56pF
C8085	K22171229	CAP. Chip	CH 50WV 56pF
C8086	K22171229	CAP. Chip	CH 50WV 56pF
C8087	K22171229	CAP. Chip	CH 50WV 56pF
C8088	K22171229	CAP. Chip	CH 50WV 56pF
C8089	K22171229	CAP. Chip	CH 50WV 56pF
C8090	K22171229	CAP. Chip	CH 50WV 56pF
C8091	K22171229	CAP. Chip	CH 50WV 56pF
C8092	K22171229	CAP. Chip	CH 50WV 56pF
T8001	L0021358	Coil	
T8002	L0020907	Coil	
L8001	L0020852	Coil	
L8002	L1190242	M.RFC	0.47uH
L8003	L0021520	Coil	
L8004	L0190138	Coil	
L8005	L1190242	M.RFC	0.47uH
L8006	L1190242	M.RFC	0.47uH
L8007	L1190270	M.RFC	100uH
L8008	L1190270	M.RFC	100uH
L8009	L1190252	M.RFC	3.3uH
L8010	L1190246	M.RFC	1uH
L8011	L0021359	Coil	
L8012	L0021359	Coil	
L8013	L1190270	M.RFC	100uH
L8014	L1190035	M.RFC	3.9mH
L8015	L1190246	M.RFC	1uH
L8016	L0021205	Coil	0.7uH
L8017	L1190244	M.RFC	0.68uH
L8018	L1020673	RFC	
L8019	L0021359	Coil	
CV8001	L4020086	Helical Resonator	
FB8001	L9190001	Ferrite Beads	
FB8002	L9190001	Ferrite Beads	
J8001	P1090210	Connector	
J8002	P0090532	Connector	
J8003	P0090530	Connector	
TP8001	Q5000036	TP-G	MK-1095
R0122640		Shield Plate	
R0123550		Leaf Spring	
R0121430		Leaf Spring	
R0121340		Leaf Spring	
R0062770B		VCO Case A	
R0062780A		VCO Case Lid	
R0056640		PLL IF Shield	
R0510870B		Shield Case	
R9211	J24205222	RES. Chip	1/10W 2.2k ohm
R9213	J24205000	RES. Chip	1/10W 0 ohm
C9201	K22170235	CAP. Chip	CH 50WV 100pF
C9202	K22170235	CAP. Chip	CH 50WV 100pF
C9203	K22170235	CAP. Chip	CH 50WV 100pF
C9204	K22170235	CAP. Chip	CH 50WV 100pF
C9205	K22170235	CAP. Chip	CH 50WV 100pF
C9206	K22170235	CAP. Chip	CH 50WV 100pF
	Q5000057	Lead Frame	
430MHz FRONT UNIT			
Symbol No.	Part No.	Description	Device
	F2929101A	Printed Circuit Board	
	C029291AA	PCB with Components	
Q7801	G48016400	FET	3SK1640
Q7802	G48016400	FET	3SK1640
R7801	J24205223	RES. Chip	1/10W 22k ohm
R7802	J24205682	RES. Chip	1/10W 6.8k ohm
R7803	J24205183	RES. Chip	1/10W 18k ohm
R7804	J24205680	RES. Chip	1/10W 68 ohm
R7805	J24205102	RES. Chip	1/10W 1k ohm
R7806	J24205101	RES. Chip	1/10W 100 ohm
R7808	J24205000	RES. Chip	1/10W 0 ohm
R7810	J24205680	RES. Chip	1/10W 68 ohm
R7811	J24205392	RES. Chip	1/10W 3.9k ohm
R7812	J24205101	RES. Chip	1/10W 100 ohm
R7814	J24205331	RES. Chip	1/10W 330 ohm
C7801	K22170227	CAP. Chip	CH 50WV 56pF
C7802	K22170805	CAP. Chip	B 50WV 0.001uF
C7803	K22170805	CAP. Chip	B 50WV 0.001uF
C7804	K22170204	CAP. Chip	CH 50WV 56pF
C7805	K22170235	CAP. Chip	CH 50WV 100pF
C7806	K22170805	CAP. Chip	B 50WV 0.001uF
C7807	K22170205	CAP. Chip	CH 50WV 56pF
C7808	K22170206	CAP. Chip	CH 50WV 56pF
C7809	K22171004	CAP. Chip	F 50WV 6.8k ohm
C7810	K22171004	CAP. Chip	F 50WV 6.8k ohm
C7812	K22171004	CAP. Chip	F 50WV 6.8k ohm
C7813	K22170805	CAP. Chip	B 50WV 0.001uF
C7814	K22170202	CAP. Chip	CH 50WV 56pF
TC7801	K91000060	Variable CAP.	2pF
T7801	L0021740	Coil	
L7801	L0020900	Coil	
L7802	L0020852	Coil	
L7803	L0020852	Coil	
L7804	L0020852	Coil	
CV7801	L4020081	Helical Resonator	
J7801	P1090210	Connector	
D7502			G209
D7503			G209
D7504			G209
D7505			G209
D7506(25W)			G209
R7501			J313
R7502(25W)			J313
R7503			J012
R7504			J022
R7505			J022
R7506(10W)			J012
R7507(10W)			J012
R7508(10W)			J012
C7502			K101
C7503			K131
C7504			K401
C7605			K101
C7606			K131
C7607			K401
C7608			K101
C7609			K131
C7510			K401
C7511			K021
C7513			K021
C7514			K021
C7516(10W)			K021
C7516(25W)			K021
C7517			K021
C7518			K021
C7519			K021
C7520			K021
C7521			K021
C7522			K021
C7523(10W)			K021
C7523(25W)			K021
C7524(10W)			K021
C7524(25W)			K021
C7525			K021
C7526			K021
C7527			K101
C7528			K101
C7529			K101
C7530			K101
C7531			K101
C7532			K101
L7501			L1020
L7502			L1020
L7503			L1020
L7504			L0020
L7505			L0020
L7506			L0020
L7507			L0020
L7508			L0020
L7509			L0020
L7510			L1190

Symbol No.	Part No.	Description	Device	J7802	P1090210	Connector	L7511	L1190
430MHz SHIFT UNIT				J7803	P1090210	Connector		
	F2892108	Printed Circuit Board			Q5000016	TP-E	MS-60124	Q5000
	C028928AA	PCB with Components			R0110610	Spring Board		Q6000
					R0123610	Shield Case		R6047

PARTS LIST

Symbol No.	Part No.	Description	Device	Symbol No.	Part No.	Description	Device
	R0123630	Shield Cover			S6000138	Beads	(25W Model)
	R0056651	PLL IF Shield Lid					
430MHz PA UNIT				CNTL UNIT			
	F2887105	Printed Circuit Board			F2891000B	Printed Circuit Board	
	C028875AA	PCB with Components: 10W Model			C028910AA	PCB with Components (w/o BURST Tone)	
	C028875AB	PCB with Components: 25W Model			C028910AB	PCB with Components* (w/1750Hz BURST Tone)	
	G1090858	IC	M57716		C028910AC	PCB with Components° (w/1800Hz BURST Tone)	
	G1090790	IC	M57745				
	G2090377	Diode	MI308	Q1001	G3406670C	Transistor	2SD667C
	G2090377	Diode	MI308	Q1002	G3313840R	Transistor	2SC1384R
	G2090377	Diode	MI308	Q1003	G1090299	IC	uPC7805H
	G2090118	Diode	1SS97	Q1004	G3304580C	Transistor	2SC458C
	G2090118	Diode	1SS97	Q1005	G3304580C	Transistor	2SC458C
	G2090377	Diode	MI308	Q1006	G3304580C	Transistor	2SC458C
	J31309002	RES.	1W 0.1 ohm	Q1007	G1090878	IC	HM6264ALP-12
	J31309002	RES.	1W 0.1 ohm	Q1008	G1090792	IC	HD63A01Y0
	J01275151	Carbon Film RES.	1/2W 150 ohm TJ	Q1009	G3304580C	Transistor	2SC458C
	J02245103	Carbon Film RES.	1/4W 10k ohm SJ	Q1010	G3090079	Transistor	BA1A4P
	J02245103	Carbon Film RES.	1/4W 10k ohm SJ				
	J01225101	Carbon Film RES.	1/6W 100 ohm PJ				

1007(10W)	J01225680	Carbon Film RES.	1/6W	68 ohm	PJ	Q1011	G1090126	IC	MC14069UBCP
1008(10W)	J01225680	Carbon Film RES.	1/6W	100 ohm	PJ	Q1012	G1090126	IC	MC14069UBCP
						Q1013	G1090067	IC	MC14013BCP
1002	K10176102	Ceramic CAP.	B	50WV	0.001uF	Q1014	G1090068	IC	MC14011BCP
1002	K13179008	Ceramic CAP.	F	50WV	0.01uF	Q1015	G1090053	IC	MC14081BCP
1004	K40129004	AL. Electro. CAP.		16WV	10uF	Q1016	G3090079	Transistor	BA1A4P
						Q1017	G3090079	Transistor	BA1A4P
1005	K10176102	Ceramic CAP.	B	50WV	0.00uF	Q1018	G3090079	Transistor	BA1A4P
1006	K13179008	Ceramic CAP.	F	50WV	0.01uF	Q1019	G1090128	IC	MC14556BCP
1007	K40129004	AL. Electro. CAP.		16WV	10uF	Q1020	G1090309	IC	MC14555BCP
						Q1021	G1090257	IC	MC14066BCP
1008	K10176102	Ceramic CAP.	B	50WV	0.001uF	Q1022	G3304580C	Transistor	2SC458C
1009	K13178008	Ceramic CAP.	F	50WV	0.01uF	Q1023	G3304580C	Transistor	2SC458C
1010	K40129004	AL. Electro. CAP.		16WV	10uF	Q1024	G1090794	IC	HD63A21P
						Q1025	G1090794	IC	HD63A21P
1011	K02172050	Ceramic CAP.	CH	50WV	5pF	Q1026	G3090079	Transistor	BA1A4P
1013	K02173080	Ceramic CAP.	CH	50WV	8pF	Q1029	G1090671	IC	uPD6302CA
1014	K02179001	Ceramic CAP.	CK	50WV	1pF	Q1030	G1090027	IC	MC14001BCP
1016(10W)	K02173060	Ceramic CAP.	CH	50WV	6pF	Q1031* ^c	G3304580C	Transistor	2SC458C
1016(25W)	K02172040	Ceramic CAP.	CH	50WV	4pF	Q1032* ^c	G3304580C	Transistor	2SC458C
1017	K02179001	Ceramic CAP.	CK	50WV	1pF	Q1033* ^c	G1090239	IC	TC5082P-G
1018	K02172030	Ceramic CAP.	GJ	50WV	3pF	Q1034* ^c	G3090075	Transistor	BN1A4P
1019	K02173060	Ceramic CAP.	CH	50WV	6pF	Q1035	G1090646	IC	LA6324
1020	K02173060	Ceramic CAP.	CH	50WV	6pF	Q1036	G3090079	Transistor	BA1A4P
1021	K02172030	Ceramic CAP.	CJ	50WV	3pF	Q1037	G3090079	Transistor	BA1A4P
1022	K02172040	Ceramic CAP.	CH	50WV	4pF	Q1038	G3090079	Transistor	BA1A4P
1023(10W)	K02173080	Ceramic CAP.	CH	50WV	8pF	Q1039	G3090079	Transistor	BA1A4P
1023(25W)	K02173100	Ceramic CAP.	CH	50WV	10pF	Q1040	G3090079	Transistor	BA1A4P
1024(10W)	K02173080	Ceramic CAP.	CH	50WV	8pF	Q1041	G3090079	Transistor	BA1A4P
1024(25W)	K02173100	Ceramic CAP.	CH	50WV	10pF	Q1042	G3090079	Transistor	BA1A4P
1025	K02173060	Ceramic CAP.	CH	50WV	6pF	Q1043	G3090079	Transistor	BA1A4P
1026	K02179001	Ceramic CAP.	CK	50WV	1pF	Q1044	G3090079	Transistor	BA1A4P
1027	K10176102	Ceramic CAP.	B	50WV	0.001uF	Q1045	G1090492	IC	MC14072BCP
1028	K10176102	Ceramic CAP.	B	50WV	0.001uF	Q1046	G3107331Q	Transistor	2SA733AQ
1029	K10176102	Ceramic CAP.	B	50WV	0.001uF	Q1047	G1090793	IC	HD74HC139P
1030	K10176102	Ceramic CAP.	B	50WV	0.001uF	Q1048	G3090081	Transistor	BN1A4M
1031	K10176102	Ceramic CAP.	B	50WV	0.001uF	Q1049	G3090074	Transistor	BA1A4M
1032	K10176102	Ceramic CAP.	B	50WV	0.001uF	Q1051	G3090082	Transistor	BN1L4L
						Q1052* ^c	G3304580C	Transistor	2SC458C
1033	L1020469	RFC				D1001	G2090338	Diode	1SS81
1034	L1020469	RFC				D1002	G2090185	Diode	HZ5C2
1035	L1020663	RFC				D1003	G2090306	Diode	10E1
1036	L0020840	Coil				D1004	G2090149	Diode	HZ12B2
1037	L0020840	Coil				D1005	G2090408	Diode	1SS270
1038	L0020901	Coil				D1007	G2090408	Diode	1SS270
1039	L0020901	Coil				D1008	G2090408	Diode	1SS270
1040	L0020840	Coil				D1009	G2090408	Diode	1SS270
1041	L0020840	Coil				D1010	G2090408	Diode	1SS270
1042	L1190246	M. RFC	1uH			D1011	G2090408	Diode	1SS270
1043	L1190246	M. RFC	1uH			D1012* ^c	G2090408	Diode	1SS270
	Q5000036	TP-G	MK-1095			D1013	G2090386	Diode	HZ33-1
	Q6000001	Terminal Strip	(10W Model)			D1015	G2090385	Diode	HZ9C2
	R6047250	Booster Spacer				D1016* ^c	G2090408	Diode	1SS270
						D1017	G2090408	Diode	1SS270

PARTS LIST

X1001	H0102811	XTAL	HC-49/T 5.5296MHz		R1089	J01225333	Carbon Film RES.	1/6W 33k ohm	UJ
X1002	H0102549	XTAL	HC-49/U 3.6864MHz		R1091	J02225103	Carbon Film RES.	1/6W 10k ohm	UJ
X1003*	H0101982	XTAL	HC-18/T 7.168MHz		R1092	J02225105	Carbon Film RES.	1/6W 1M ohm	UJ
X1003°	H0101983	XTAL	HC-18/T 7.3728MHz		R1093	J02225223	Carbon Film RES.	1/6W 22k ohm	UJ
					R1094*°	J02225104	Carbon Film RES.	1/6W 100k ohm	UJ
R1001	J01275479	Carbon Film RES.	1/2W 4.7 ohm	TJ					
R1002	J02225101	Carbon Film RES.	1/6W 100 ohm	UJ	C1001	K40129043	AL. Electro. CAP.	16WV 330uF	
R1003	J02225222	Carbon Film RES.	1/6W 2.2k ohm	UJ	C1002	K40129043	AL. Electro. CAP.	16WV 330uF	
R1004	J02225101	Carbon Film RES.	1/6W 100 ohm	UJ	C1003	K40129008	AL. Electro. CAP.	16WV 33uF	
R1006	J02225222	Carbon Film RES.	1/6W 2.2k ohm	UJ	C1004	K40129043	AL. Electro. CAP.	16WV 330uF	
R1007	J02225221	Carbon Film RES.	1/6W 220 ohm	UJ	C1005	K19149021	Ceramic CAP.	25WV 0.047uF	
R1008	J02225473	Carbon Film RES.	1/6W 47k ohm	UJ	C1006	K19149013	Ceramic CAP.	25WV 0.01uF	
R1009	J02225472	Carbon Film RES.	1/6W 4.7k ohm	UJ	C1007	K40179014	AL. Electro. CAP.	50WV 10uF	
R1010	J02225472	Carbon Film RES.	1/6W 4.7k ohm	UJ	C1008	K13179008	Ceramic CAP.	F 50WV 0.01uF	
R1011	J02225223	Carbon Film RES.	1/6W 22k ohm	UJ	C1009	K40129004	AL. Electro. CAP.	16WV 10uF	
R1012	J02225472	Carbon Film RES.	1/6W 4.7k ohm	UJ	C1010	K12171102	Ceramic CAP.	E 50WV 0.001uF	
R1013	J02225472	Carbon Film RES.	1/6W 4.7k ohm	UJ	C1011	K40129049	AL. Electro. CAP.	16WV 470uF	
R1014	J02225103	Carbon Film RES.	1/6W 10k ohm	UJ	C1012	K40149001	AL. Electro. CAP.	25WV 4.7uF	
R1016	J02225472	Carbon Film RES.	1/6W 4.7k ohm	UJ	C1013	K40109001	AL. Electro. CAP.	10WV 100uF	
R1017	J40900163	Block RES.	1/8W 10k ohm		C1014	K19149021	Ceramic CAP.	25WV 0.047uF	
R1018	J02225472	Carbon Film RES.	1/6W 4.7k ohm	UJ	C1015	K70107475	Tantalum CAP.	10WV 4.7uF	
R1019	J02225103	Carbon Film RES.	1/6W 10k ohm	UJ	C1016	K12171102	Ceramic CAP.	E 50WV 0.001uF	
R1020	J02225103	Carbon Film RES.	1/6W 10k ohm	UJ	C1017	K40129004	AL. Electro. CAP.	16WV 10uF	
R1021	J02225333	Carbon Film RES.	1/6W 33k ohm	UJ	C1018	K19149021	Ceramic CAP.	25WV 0.0047uF	
R1022	J02225333	Carbon Film RES.	1/6W 33k ohm	UJ	C1019	K00175150	Ceramic CAP.	SL 50WV 150pF	
R1023	J02225333	Carbon Film RES.	1/6W 33k ohm	UJ	C1020	K00175150	Ceramic CAP.	SL 50WV 150pF	
R1024	J02225333	Carbon Film RES.	1/6W 33k ohm	UJ	C1022	K00175101	Ceramic CAP.	SL 50WV 100pF	
R1025	J02225104	Carbon Film RES.	1/6W 100k ohm	UJ	C1023	K19149001	Ceramic CAP.	25WV 0.001uF	
R1026	J02225104	Carbon Film RES.	1/6W 100k ohm	UJ	C1024	K19149001	Ceramic CAP.	25WV 0.001uF	
R1027	J02225104	Carbon Film RES.	1/6W 100k ohm	UJ	C1025	K00175101	Ceramic CAP.	SL 50WV 100pF	
R1028	J02225104	Carbon Film RES.	1/6W 100k ohm	UJ	C1026	K00175101	Ceramic CAP.	SL 50WV 100pF	
R1029	J02225334	Carbon Film RES.	1/6W 330k ohm	UJ	C1027	K19149001	Ceramic CAP.	25WV 0.001uF	
R1030	J02225334	Carbon Film RES.	1/6W 330k ohm	UJ	C1028	K19149001	Ceramic CAP.	25WV 0.001uF	
R1031	J02225334	Carbon Film RES.	1/6W 330k ohm	UJ					
R1032	J02225334	Carbon Film RES.	1/6W 330k ohm	UJ					
R1033	J02225473	Carbon Film RES.	1/6W 47k ohm	UJ					
R1034	J02225823	Carbon Film RES.	1/6W 82k ohm	UJ					
R1035	J02225823	Carbon Film RES.	1/6W 82k ohm	UJ					
R1036	J02225823	Carbon Film RES.	1/6W 82k ohm	UJ					
R1037	J02225823	Carbon Film RES.	1/6W 82k ohm	UJ					
R1038	J40900031	Block RES.	1/8W 4.7k ohm						
R1039	J02225103	Carbon Film RES.	1/6W 10k ohm	UJ					

T1001	
BZ1001	
S1001	
S1002	
J1001	
J1002	
J1003	
J1004	
J1005	
J1006	
J1007	
J1008	
J1009	
J1010	
J1011	
J1012	
J1013	
J1014	
J1015	
J1016	
J1017	
J1018	
J1019	
J1020	
BAT1001	
Symbol No.	

R1040	J40900165	Block RES.	1/6W	10k ohm	UJ	C1029	K19149001	Ceramic CAP.		25WV	0.001		
R1041	J02225103	Carbon Film RES.	1/6W	10k ohm	UJ	C1030	K19149001	Ceramic CAP.		25WV	0.001	Q2001	G1
R1042	J02225104	Carbon Film RES.	1/6W	100k ohm	UJ	C1031	K19149021	Ceramic CAP.		25WV	0.001	Q2002	G3
R1043	J02225472	Carbon Film RES.	1/6W	4.7k ohm	UJ	C1032	K00175470	Ceramic CAP.	SL	25WV	0.001	Q2003	G3
R1044	J02225222	Carbon Film RES.	1/6W	2.2k ohm	UJ	C1033	K19149021	Ceramic CAP.		25WV	0.001	Q2004	G3
R1045	J02225331	Carbon Film RES.	1/6W	330 ohm	UJ	C1034	K19149021	Ceramic CAP.		25WV	0.001	Q2005	G1
R1046	J02225472	Carbon Film RES.	1/6W	4.7k ohm	UJ	C1035	K00175330	Ceramic CAP.	SL	50WV	0.001	Q2006	G3
R1047	J02225681	Carbon Film RES.	1/6W	680 ohm	UJ	C1036	K00175330	Ceramic CAP.	SL	50WV	0.001		
R1048	J40900035	Block RES.	1/8W	10k ohm		C1037	K70167105	Tantalum CAP.		35WV	0.001	D2001	G2
R1049	J02225472	Carbon Film RES.	1/6W	4.7k ohm	UJ	C1038	K19149005	Ceramic CAP.		25WV	0.001	D2002	G2
R1050	J40900164	Block RES.	1/8W	10k ohm		C1039	K19149013	Ceramic CAP.		25WV	0.001	D2003	G2
R1052	J02225473	Carbon Film RES.	1/6W	47k ohm	UJ	C1040	K19149021	Ceramic CAP.		25WV	0.001	D2004	G2
R1053	J02225273	Carbon Film RES.	1/6W	27k ohm	UJ	C1041	K19149021	Ceramic CAP.		25WV	0.001	D2007	G2
R1054	J02225104	Carbon Film RES.	1/6W	100k ohm	UJ	C1042	K40179013	AL. Electro. CAP.		50WV	0.001	D2008	G2
R1057	J02225103	Carbon Film RES.	1/6W	10k ohm	UJ							D2010	G2
R1058	J02225104	Carbon Film RES.	1/6W	100k ohm	UJ							D2011	G2
R1059	J02225124	Carbon Film RES.	1/6W	120k ohm	UJ	C1043*	K70147105	Tantalum CAP.		25WV	0.001	D2012	G2
R1060*	J02225473	Carbon Film RES.	1/6W	47k ohm	UJ	C1044	K19149021	Ceramic CAP.		25WV	0.001	D2013	G2
R1061*	J02225473	Carbon Film RES.	1/6W	47k ohm	UJ	C1045*	K12171102	Ceramic CAP.	E	50WV	0.001	D2014	G2
R1062*	J02225105	Carbon Film RES.	1/6W	1M ohm	UJ	C1046*	K00175330	Ceramic CAP.	SL	50WV	0.001	D2015	G2
R1063*	J02225223	Carbon Film RES.	1/6W	22k ohm	UJ	C1047*	K00175330	Ceramic CAP.	SL	50WV	0.001	D2016	G2
R1064*	J02225103	Carbon Film RES.	1/6W	10k ohm	UJ	C1048*	K19149013	Ceramic CAP.		25WV	0.001		
R1066*	J01225274	Carbon Film RES.	1/6W	270k ohm	PJ	C1049*	K19149013	Ceramic CAP.		25WV	0.001		
R1067*	J02225332	Carbon Film RES.	1/6W	3.3k ohm	UJ	C1050*	K19149021	Ceramic CAP.		25WV	0.001	DS2001	G6
R1068*	J02225222	Carbon Film RES.	1/6W	2.2k ohm	UJ	C1051*	K40129004	AL. Electro. CAP.		16WV	0.001		
R1069	J02225224	Carbon Film RES.	1/6W	220k ohm	UJ							X2001	H7
R1070	J02225102	Carbon Film RES.	1/6W	1k ohm	UJ	C1052	K19149023	Ceramic CAP.		25WV	0.001	X2002	H7
R1071	J02225104	Carbon Film RES.	1/6W	100k ohm	UJ	C1053	K19149013	Ceramic CAP.		25WV	0.001		
R1072	J02225683	Carbon Film RES.	1/6W	68k ohm	UJ	C1054	K40179016	AL. Electro. CAP.		50WV	0.001	R2001	J01
R1073	J02225683	Carbon Film RES.	1/6W	68k ohm	UJ							R2002	J01
R1074	J02225103	Carbon Film RES.	1/6W	10k ohm	UJ	C1055	K19149013	Ceramic CAP.		25WV	0.001	R2003	J01
R1075	J02225332	Carbon Film RES.	1/6W	3.3k ohm	UJ	C1056	K00175101	Ceramic CAP.	SL	50WV	0.001	R2004	J01
R1076	J02225104	Carbon Film RES.	1/6W	100k ohm	UJ	C1057	K40129004	AL. Electro. CAP.		16WV	0.001	R2009	J02
R1077	J02225103	Carbon Film RES.	1/6W	10k ohm	UJ							R2010	J02
R1078	J02225472	Carbon Film RES.	1/6W	4.7k ohm	UJ	C1058	K40129004	AL. Electro. CAP.		16WV	0.001	R2011	J02
R1079	J02225472	Carbon Film RES.	1/6W	4.7k ohm	UJ							R2012	J02
R1080	J02225154	Carbon Film RES.	1/6W	150k ohm	UJ	C1059	K12171102	Ceramic CAP.	E	50WV	0.001	R2013	J02
R1081	J02225155	Carbon Film RES.	1/6W	1.5M ohm	UJ	C1060	K70167474	Tantalum CAP.		35WV	0.001	R2014	J02
R1082	J02225473	Carbon Film RES.	1/6W	47k ohm	UJ	C1061	K12171102	Ceramic CAP.		25WV	0.001	R2016	J01
R1083	J02225104	Carbon Film RES.	1/6W	100k ohm	UJ	C1062	K19149001	Ceramic CAP.		25WV	0.001	R2017	J02
R1084	J02225332	Carbon Film RES.	1/6W	3.3k ohm	UJ	C1063	K19149001	Ceramic CAP.		25WV	0.001	R2018	J02
R1085	J02225103	Carbon Film RES.	1/6W	10k ohm	UJ	C1064	K70137225	Tantalum CAP.		20WV	0.001	R2019	J02
R1086	J02225332	Carbon Film RES.	1/6W	3.3k ohm	UJ	C1066	K19149005	Ceramic CAP.		25WV	0.001	R2020	J02
R1087	J02225103	Carbon Film RES.	1/6W	10k ohm	UJ	C1067	K22170227	CAP. Chip	CH	50WV	0.001		
R1088	J02225473	Carbon Film RES.	1/6W	47k ohm	UJ	C1068	K22170227	CAP. Chip	CH	50WV	0.001	C2001	K19

PARTS LIST

X1001	H0102811	XTAL	HC-49/T 5.5296MHz	R1089	J01225333	Carbon Film RES.	1/6W	33k ohm	UJ	T1001	
X1002	H0102549	XTAL	HC-49/U 3.6864MHz	R1091	J02225103	Carbon Film RES.	1/6W	10k ohm	UJ	BZ1001	
X1003*	H0101982	XTAL	HC-18/T 7.168MHz	R1092	J02225105	Carbon Film RES.	1/6W	1M ohm	UJ	S1001	
X1003 ^o	H0101983	XTAL	HC-18/T 7.3728MHz	R1093	J02225223	Carbon Film RES.	1/6W	22k ohm	UJ	S1002	
				R1094* ^o	J02225104	Carbon Film RES.	1/6W	100k ohm	UJ	J1001	
R1001	J01275479	Carbon Film RES.	1/2W 4.7 ohm	TJ						J1002	
R1002	J02225101	Carbon Film RES.	1/6W 100 ohm	UJ	C1001	K40129043	AL. Electro. CAP.	16WV	330nF	J1003	
R1003	J02225222	Carbon Film RES.	1/6W 2.2k ohm	UJ	C1002	K40129043	AL. Electro. CAP.	16WV	330nF	J1004	
R1004	J02225101	Carbon Film RES.	1/6W 100 ohm	UJ	C1003	K40129008	AL. Electro. CAP.	16WV	330nF	J1005	
R1006	J02225222	Carbon Film RES.	1/6W 2.2k ohm	UJ	C1004	K40129043	AL. Electro. CAP.	16WV	330nF	J1006	
R1007	J02225221	Carbon Film RES.	1/6W 220 ohm	UJ	C1005	K19149021	Ceramic CAP.	25WV	0.047uF	J1007	
R1008	J02225473	Carbon Film RES.	1/6W 47k ohm	UJ	C1006	K19149013	Ceramic CAP.	25WV	0.01uF	J1008	
R1009	J02225472	Carbon Film RES.	1/6W 4.7k ohm	UJ	C1007	K40179014	AL. Electro. CAP.	50WV	10uF	J1009	
R1010	J02225472	Carbon Film RES.	1/6W 4.7k ohm	UJ	C1008	K13179008	Ceramic CAP.	F	50WV 0.01uF	J1010	
R1011	J02225223	Carbon Film RES.	1/6W 22k ohm	UJ	C1009	K40129004	AL. Electro. CAP.	16WV	10uF	J1011	
R1012	J02225472	Carbon Film RES.	1/6W 4.7k ohm	UJ	C1010	K12171102	Ceramic CAP.	E	50WV 0.001uF	J1012	
R1013	J02225472	Carbon Film RES.	1/6W 4.7k ohm	UJ	C1011	K40129049	AL. Electro. CAP.	16WV	470nF	J1013	
R1014	J02225103	Carbon Film RES.	1/6W 10k ohm	UJ	C1012	K40149001	AL. Electro. CAP.	25WV	4.7uF	J1014	
R1016	J02225472	Carbon Film RES.	1/6W 4.7k ohm	UJ	C1013	K40109001	AL. Electro. CAP.	10WV	100nF	J1015	
R1017	J40900163	Block RES.	1/8W 10k ohm	UJ	C1014	K19149021	Ceramic CAP.	25WV	0.047uF	J1016	
R1018	J02225472	Carbon Film RES.	1/6W 4.7k ohm	UJ	C1015	K70107475	Tantalum CAP.	10WV	4.7uF	J1017	
R1019	J02225103	Carbon Film RES.	1/6W 10k ohm	UJ	C1016	K12171102	Ceramic CAP.	E	50WV 0.001uF	J1018	
R1020	J02225103	Carbon Film RES.	1/6W 10k ohm	UJ	C1017	K40129004	AL. Electro. CAP.	16WV	10uF	J1019	
R1021	J02225333	Carbon Film RES.	1/6W 33k ohm	UJ	C1018	K19149021	Ceramic CAP.	25WV	0.0047uF	J1020	
R1022	J02225333	Carbon Film RES.	1/6W 33k ohm	UJ	C1019	K00175150	Ceramic CAP.	SL	50WV 15pF	BAT1001	Q1
R1023	J02225333	Carbon Film RES.	1/6W 33k ohm	UJ	C1020	K00175150	Ceramic CAP.	SL	50WV 15pF		R1
R1024	J02225333	Carbon Film RES.	1/6W 33k ohm	UJ	C1022	K00175101	Ceramic CAP.	SL	50WV 100pF		R2
R1025	J02225104	Carbon Film RES.	1/6W 100k ohm	UJ	C1023	K19149001	Ceramic CAP.	25WV	0.001uF		R3
R1026	J02225104	Carbon Film RES.	1/6W 100k ohm	UJ	C1024	K19149001	Ceramic CAP.	25WV	0.001uF		R4
R1027	J02225104	Carbon Film RES.	1/6W 100k ohm	UJ	C1025	K00175101	Ceramic CAP.	SL	50WV 100pF		R5
R1028	J02225104	Carbon Film RES.	1/6W 100k ohm	UJ	C1026	K00175101	Ceramic CAP.	SL	50WV 100pF		R6
R1029	J02225334	Carbon Film RES.	1/6W 330k ohm	UJ	C1027	K19149001	Ceramic CAP.	25WV	0.001uF		R7
R1030	J02225334	Carbon Film RES.	1/6W 330k ohm	UJ	C1028	K19149001	Ceramic CAP.	25WV	0.001uF		R8
R1031	J02225334	Carbon Film RES.	1/6W 330k ohm	UJ	C1029	K19149001	Ceramic CAP.	25WV	0.001uF		R9
R1032	J02225334	Carbon Film RES.	1/6W 330k ohm	UJ	C1030	K19149001	Ceramic CAP.	25WV	0.001uF		R10
R1033	J02225473	Carbon Film RES.	1/6W 47k ohm	UJ	C1031	K19149021	Ceramic CAP.	25WV	0.047uF		R11
R1034	J02225823	Carbon Film RES.	1/6W 82k ohm	UJ	C1032	K00175470	Ceramic CAP.	SL	25WV 47pF		R12
R1035	J02225823	Carbon Film RES.	1/6W 82k ohm	UJ	C1033	K19149021	Ceramic CAP.	25WV	0.047uF		R13
R1036	J02225823	Carbon Film RES.	1/6W 82k ohm	UJ	C1034	K19149021	Ceramic CAP.	25WV	0.047uF		R14
R1037	J02225823	Carbon Film RES.	1/6W 82k ohm	UJ	C1035	K00175330	Ceramic CAP.	SL	50WV 33pF		R15
R1038	J40900031	Block RES.	1/8W 4.7k ohm	UJ	C1036	K00175330	Ceramic CAP.	SL	50WV 33pF		R16
R1039	J02225103	Carbon Film RES.	1/6W 10k ohm	UJ	C1037	K70167105	Tantalum CAP.	35WV	1uF		R17
R1040	J40900165	Block RES.	1/8W 10k ohm	UJ	C1038	K19149005	Ceramic CAP.	25WV	0.0022uF		R18
R1041	J02225103	Carbon Film RES.	1/6W 10k ohm	UJ	C1039	K19149013	Ceramic CAP.	25WV	0.01uF		R19
R1042	J02225104	Carbon Film RES.	1/6W 100k ohm	UJ	C1040	K19149021	Ceramic CAP.	25WV	0.047uF		R20
R1043	J02225472	Carbon Film RES.	1/6W 4.7k ohm	UJ							R21
R1044	J02225222	Carbon Film RES.	1/6W 2.2k ohm	UJ							R22
R1045	J02225331	Carbon Film RES.	1/6W 330 ohm	UJ							R23
R1046	J02225472	Carbon Film RES.	1/6W 4.7k ohm	UJ							R24
R1047	J02225681	Carbon Film RES.	1/6W 680 ohm	UJ							R25
R1048	J40900035	Block RES.	1/8W 10k ohm	UJ							R26
R1049	J02225472	Carbon Film RES.	1/6W 4.7k ohm	UJ							R27
R1050	J40900164	Block RES.	1/8W 10k ohm	UJ							R28
R1052	J02225473	Carbon Film RES.	1/6W 47k ohm	UJ							R29
			1/6W 97k ohm	UJ							R30

R1053	J02225273	Carbon Film RES.	1/6W	100k ohm	UJ	C1041	K19149021	Ceramic CAP.	25WV	0.001uF	D2007	G20	
R1054	J02225104	Carbon Film RES.	1/6W	10k ohm	UJ	C1042	K40179013	AL. Electro. CAP.	50WV	1uF	D2008	G20	
R1057	J02225103	Carbon Film RES.	1/6W	10k ohm	UJ						D2010	G20	
R1058	J02225104	Carbon Film RES.	1/6W	100k ohm	UJ						D2011	G20	
R1059	J02225124	Carbon Film RES.	1/6W	120k ohm	UJ	C1043*	K70147105	Tantalum CAP.	25WV	1uF	D2012	G20	
R1060*	J02225473	Carbon Film RES.	1/6W	47k ohm	UJ	C1044	K19149021	Ceramic CAP.	25WV	0.001uF	D2013	G20	
R1061*	J02225473	Carbon Film RES.	1/6W	47k ohm	UJ	C1045*	K12171102	Ceramic CAP.	E	50WV	0.001uF	D2014	G20
R1062*	J02225105	Carbon Film RES.	1/6W	1M ohm	UJ	C1046*	K00175330	Ceramic CAP.	SL	50WV	1uF	D2015	G20
R1063*	J02225223	Carbon Film RES.	1/6W	22k ohm	UJ	C1047*	K00175330	Ceramic CAP.	SL	50WV	1uF	D2016	G20
R1064*	J02225103	Carbon Film RES.	1/6W	10k ohm	UJ	C1048*	K19149013	Ceramic CAP.		25WV	5.0uF		
R1066*	J01225274	Carbon Film RES.	1/6W	270k ohm	PJ	C1049*	K19149013	Ceramic CAP.		25WV	0.001uF		
R1067*	J02225332	Carbon Film RES.	1/6W	3.3k ohm	UJ	C1050*	K19149021	Ceramic CAP.		25WV	0.001uF		
R1068*	J02225222	Carbon Film RES.	1/6W	2.2k ohm	UJ	C1051*	K40129004	AL. Electro. CAP.		16WV	1uF	DS2001	G60
R1069	J02225224	Carbon Film RES.	1/6W	220k ohm	UJ							X2001	H70
R1070	J02225102	Carbon Film RES.	1/6W	1k ohm	UJ	C1052	K19149023	Ceramic CAP.		25WV	0.001uF	X2002	H70
R1071	J02225104	Carbon Film RES.	1/6W	100k ohm	UJ	C1053	K19149013	Ceramic CAP.		25WV	0.001uF		
R1072	J02225683	Carbon Film RES.	1/6W	68k ohm	UJ	C1054	K40179016	AL. Electro. CAP.		50WV	0.5uF	R2001	J01
R1073	J02225683	Carbon Film RES.	1/6W	68k ohm	UJ							R2002	J01
R1074	J02225103	Carbon Film RES.	1/6W	10k ohm	UJ	C1055	K19149013	Ceramic CAP.		25WV	0.001uF	R2003	J01
R1075	J02225332	Carbon Film RES.	1/6W	3.3k ohm	UJ	C1056	K00175101	Ceramic CAP.	SL	50WV	1uF	R2004	J01
R1076	J02225104	Carbon Film RES.	1/6W	100k ohm	UJ	C1057	K40129004	AL. Electro. CAP.		16WV	1uF	R2009	J02
R1077	J02225103	Carbon Film RES.	1/6W	10k ohm	UJ							R2010	J02
R1078	J02225472	Carbon Film RES.	1/6W	4.7k ohm	UJ	C1058	K40129004	AL. Electro. CAP.		16WV	1uF	R2011	J02
R1079	J02225472	Carbon Film RES.	1/6W	4.7k ohm	UJ							R2012	J02
R1080	J02225154	Carbon Film RES.	1/6W	150k ohm	UJ	C1059	K12171102	Ceramic CAP.	E	50WV	0.001uF	R2013	J02
R1081	J02225155	Carbon Film RES.	1/6W	1.5M ohm	UJ	C1060	K70167474	Tantalum CAP.		35WV	0.47uF	R2014	J02
R1082	J02225473	Carbon Film RES.	1/6W	47k ohm	UJ	C1061	K12171102	Ceramic CAP.		25WV	0.001uF	R2016	J01
R1083	J02225104	Carbon Film RES.	1/6W	100k ohm	UJ	C1062	K19149001	Ceramic CAP.		25WV	0.001uF	R2017	J02
R1084	J02225332	Carbon Film RES.	1/6W	3.3k ohm	UJ	C1063	K19149001	Ceramic CAP.		25WV	0.001uF	R2018	J02
R1085	J02225103	Carbon Film RES.	1/6W	10k ohm	UJ	C1064	K70137225	Tantalum CAP.		20WV	1.5uF	R2019	J02
R1086	J02225332	Carbon Film RES.	1/6W	3.3k ohm	UJ	C1066	K19149005	Ceramic CAP.		25WV	0.001uF	R2020	J02
R1087	J02225103	Carbon Film RES.	1/6W	10k ohm	UJ	C1067	K22170227	CAP. Chip	CH	50WV	0.01uF		
R1088	J02225473	Carbon Film RES.	1/6W	47k ohm	UJ	C1068	K22170227	CAP. Chip	CH	50WV	0.01uF	C2001	K191

PARTS LIST

UJ				C2002	K70127225	Tantalum CAP.		16WV	2.2uF	
UJ	11001	L3030125	Trans	MPS-162	C2004	K12171102	Ceramic CAP.	E	50WV	0.001uF
UJ				C2005	K19149013	Ceramic CAP.		25WV	0.01uF	
UJ	221001	M4290004A	Buzzer	PZS-22K	C2007	K12171102	Ceramic CAP.	E	50WV	0.001uF
UJ				C2008	K70167474	Tantalum CAP.		35WV	0.47uF	

50WV	0.068uF
50WV	0.01uF
50WV	0.1uF
35WV	0.01uF
50WV	100pF
16WV	10uF
16WV	10uF
50WV	0.001uF
35WV	0.47uF
25WV	0.001uF
25WV	0.001uF
25WV	0.001uF
20WV	2.2uF
25WV	0.0022uF
50WV	47pF
50WV	47pF

H7900380	Ceramic OSC	CST4.00-MG			C804	K12171102	Ceramic CAP.	50WV	0.001uF
H7900390	Ceramic OSC	CST3.58-MG			C805	K40179016	AL. Electro. CAP.	50WV	0.1uF
J01225821	Carbon Film RES.	1/6W 820 ohm	PJ						
J01225821	Carbon Film RES.	1/6W 820 ohm	PJ		L801	L2190002	AFC	100uH	
J01225821	Carbon Film RES.	1/6W 820 ohm	PJ						
J01225821	Carbon Film RES.	1/6W 820 ohm	PJ		TP801	Q5000037	TP-H	MK-10160	
J02225681	Carbon Film RES.	1/6W 680 ohm	UJ		TP802	Q5000037	TP-H	MK-10160	
J02225681	Carbon Film RES.	1/6W 680 ohm	UJ		TP803	Q5000037	TP-H	MK-10160	
J02225151	Carbon Film RES.	1/6W 150 ohm	UJ		TP804	Q5000037	TP-H	MK-10160	
J02225561	Carbon Film RES.	1/6W 560 ohm	UJ		TP805	Q5000037	TP-H	MK-10160	
J02225561	Carbon Film RES.	1/6W 560 ohm	UJ						
J02225121	Carbon Film RES.	1/6W 120 ohm	UJ						
J01225473	Carbon Film RES.	1/6W 47k ohm	PJ						
J02225102	Carbon Film RES.	1/6W 1k ohm	UJ						
J02225222	Carbon Film RES.	1/6W 2.2k ohm	UJ						
J02225104	Carbon Film RES.	1/6W 100k ohm	UJ						
J02225472	Carbon Film RES.	1/6W 4.7k ohm	UJ						
K19149021	Ceramic CAP.			25WV	0.047uF				

PROTECTOR UNIT			
Symbol No.	Part No.	Description	Device
	F2889102	Printed Circuit Board	
	C028892AA	PCB with Components	

PARTS LIST

D701	G2090232	Diode	S11B
ZNR701	Q9000381	Surge Absorber	ERZ-C10DK471
ZNR702	Q9000382	Surge Absorber	ERZ-C10DK681
ZNR703	Q9000382	Surge Absorber	ERZ-C10DK681
F701	Q0000027	Miniature Fuse	MF51 5A
F702	Q0000027	Miniature Fuse	MF51 5A
	P2000024	Fuse Holder	
VR-A UNIT			
Symbol No.	Part No.	Description	Device
	F2890104A	Printed Circuit Board	
	C028892AA	PCB with	

J201	P0090528	Connector	
J202	P0090524	Connector	
J203	P0090526	Connector	
J204	P0090525	Connector	
J205	P0090528	Connector	
VR-D UNIT			
Symbol No.	Part No.	Description	Device
	F2890109	Printed Circuit Board	
	C028909AA	PCB with Components	
R901	J07225222	Carbon Film RES.	1/6W 2.2k ohm N

Symbol No.	Pa
	F28
	C02
\$551	Q90
J551	P00

		Components		
R402	J01225103	Carbon Film RES.	1/6W 10K ohm	PJ
R403	J02245103	Carbon Film RES.	1/4W 10K ohm	SJ
R404	J02245101	Carbon Film RES.	1/4W 100 ohm	SJ
R405	J02245101	Carbon Film RES.	1/4W 100 ohm	SJ
VR401	J62800100	Potentiometer (AF/RF)	10KA/10KC	
VR402	J63800008	Potentiometer (SQL/TONE)	50KB,10KB/10KB	
VR403	J63800007	Potentiometer (MIC/DRIVE)	10KA/50KB,10KB	
J401	P0090524	Connector		
J402	P0090525	Connector		
J403	P0090525	Connector		
J404	P0090526	Connector		
J405	P0090529	Connector		
J406	P0090524	Connector		
J407	P0090524	Connector		
J408	P0090524	Connector		
J409	P1090522	Connector		
J410	P0090524	Connector		
VR-B UNIT				
Symbol No.	Part No.	Description	Device	
	F2890105A	Printed Circuit Board		
	C028905AA	PCB with Components		
R501	J02225472	Carbon Film RES.	1/6W 4.7k ohm	UJ
VR501	J60800133	Potentiometer (MONITOR)	50KB	
C501	K70167334	Tantalum CAP.	35WV 0.33uF	
C502	K19149021	Ceramic CAP.	25WV 0.047uF	
C503	K19149025	Ceramic CAP.	25WV 0.1uF	
L501	L1190115	Coil	150mH	
VR-C UNIT				
Symbol No.	Part No.	Description	Device	
	F2890106A	Printed Circuit Board		
	C028906AA	PCB with Components		
D201	G2090379	Diode	1SS119	
R201	J02225472	Carbon Film RES.	1/6W 4.7k ohm	UJ
VR201	J60800134	Potentiometer (VOX GAIN)	10KA	
VR202	J60800136	Potentiometer (VOX DELAY)	500KA	
VR203	J60800135	Potentiometer (VOX ANTI-TRIP)	10KB	

VR901	J62800101	Potentiometer (SHIFT/NOTCH)	10KB/10KB
J901	P0090524	Connector	
J902	P0090525	Connector	
SW-A UNIT			
Symbol No.	Part No.	Description	Device
	F2890101	Printed Circuit Board	
	C028901AA	PCB with Components	
D301	G2090408	Diode	1SS270
R301	J02245330	Carbon Film RES.	1/4W 33 ohm U
S301	N4090109	Push Switch	
J301	P0090525	Connector	
J302	P0090528	Connector	
J303	P0090529	Connector	
TP301	Q5000036	TP-G	MK-1095
TP302	Q5000036	TP-G	MK-1095
SW-B UNIT			
Symbol No.	Part No.	Description	Device
	F2890102	Printed Circuit Board	
	C028902AA	PCB with Components	
D601	G2090269	LED	SR-538D
D602	G2090268	LED	SY-438D
D603	G2090268	LED	SY-438D
D604	G2090267	LED	SG-238D
D605	G2090267	LED	SG-238D
R601	J02225122	Carbon Film RES.	1/6W 1.2k ohm U
R602	J02225122	Carbon Film RES.	1/6W 1.2k ohm U
R603	J02225122	Carbon Film RES.	1/6W 1.2k ohm U
R604	J02225122	Carbon Film RES.	1/6W 1.2k ohm U
R605	J02225122	Carbon Film RES.	1/6W 1.2k ohm U
R606	J02225222	Carbon Film RES.	1/6W 2.2k ohm U
S601	N4090103	Push Switch	
SW-C UNIT			
Symbol No.	Part No.	Description	Device
	F2890103	Printed Circuit Board	
	C028903AA	PCB with Components	
Q101	G3107331Q	Transistor	2SA733AQ
R101	J02225474	Carbon Film RES.	1/6W 470k ohm U
S101	N4090104	Push Switch	

144MHz
430MHz

M

VR204	J60800137	Potentiometer (KEYER SPEED)	500KC	S102	N0190137	Rotary Switch	
				J101	P0090525	Connector	
S201	N0190144	Rotary Switch (AGC)		J102	P0090527	Connector	
S202	N0190142	Rotary Switch (SAT)					

PARTS LIST

D701	G2090232	Diode	S11B				
ZNR701	Q9000381	Surge Absorber	ERZ-C10DK471	J201	P0090528	Connector	
ZNR702	Q9000382	Surge Absorber	ERZ-C10DK681	J202	P0090524	Connector	
ZNR703	Q9000382	Surge Absorber	ERZ-C10DK681	J203	P0090526	Connector	
F701	Q0000027	Miniature Fuse	MF51 5A	J204	P0090525	Connector	
F702	Q0000027	Miniature Fuse	MF51 5A	J205	P0090528	Connector	
	P2000024	Fuse Holder					
VR-A UNIT				VR-D UNIT			
Symbol No.	Part No.	Description	Device	Symbol No.	Part No.	Description	Device
	F2890104A	Printed Circuit Board			F2890109	Printed Circuit Board	
	C028904AA	PCB with Components			C028909AA	PCB with Components	
R402	J01225103	Carbon Film RES.	1/6W 10K ohm PJ	R901	J07225222	Carbon Film RES.	1/6W 2.2k ohm N
R403	J02245103	Carbon Film RES.	1/4W 10K ohm SJ	VR901	J62800101	Potentiometer (SHIFT/NOTCH)	10KB/10KB
R404	J02245101	Carbon Film RES.	1/4W 100 ohm SJ	J901	P0090524	Connector	
R405	J02245101	Carbon Film RES.	1/4W 100 ohm SJ	J902	P0090525	Connector	
VR401	J62800100	Potentiometer (AF/RF)	10KA/10KC	SW-A UNIT			
VR402	J63800008	Potentiometer (SQL/TONE)	50KB,10KB/10KB	Symbol No.	Part No.	Description	Device
VR403	J63800007	Potentiometer	10KA/50KB.10KB		F2890101	Printed Circuit Board	
					C028901AA	PCB with	

Symbol No.	Pa
	F28
	C02
\$551	Q90
J551	P00

4.50MHz 144MHz

		(MIC/DRIVE)					Components		
J401	P0090524	Connector				D301	G2090408	Diode	ISS270
J402	P0090525	Connector							
J403	P0090525	Connector				R301	J02245330	Carbon Film RES.	1/4W 33 ohm U
J404	P0090526	Connector							
J405	P0090529	Connector				S301	N4090109	Push Switch	
J406	P0090524	Connector							
J407	P0090524	Connector				J301	P0090525	Connector	
J408	P0090524	Connector				J302	P0090528	Connector	
J409	P1090522	Connector				J303	P0090529	Connector	
J410	P0090524	Connector							
						TP301	Q5000036	TP-G	MK-1095
						TP302	Q5000036	TP-G	MK-1095
VR-B UNIT									
Symbol No.	Part No.	Description	Device						
	F2890105A	Printed Circuit Board			SW-B UNIT				
	C028905AA	PCB with Components			Symbol No.	Part No.	Description	Device	
R501	J02225472	Carbon Film RES.	1/6W	4.7k ohm	UJ		F2890102	Printed Circuit Board	
VR501	J60800133	Potentiometer (MONITOR)	50KB				C028902AA	PCB with Components	
C501	K70167334	Tantalum CAP.	35WV	0.33uF		D601	G2090269	LED	SR-538D
C502	K19149021	Ceramic CAP.	25WV	0.047uF		D602	G2090268	LED	SY-438D
C503	K19149025	Ceramic CAP.	25WV	0.1uF		D603	G2090268	LED	SY-438D
L501	L1190115	Coil	150mH			D604	G2090267	LED	SG-238D
						D605	G2090267	LED	SG-238D
						R601	J02225122	Carbon Film RES.	1/6W 1.2k ohm U
						R602	J02225122	Carbon Film RES.	1/6W 1.2k ohm U
						R603	J02225122	Carbon Film RES.	1/6W 1.2k ohm U
						R604	J02225122	Carbon Film RES.	1/6W 1.2k ohm U
						R605	J02225122	Carbon Film RES.	1/6W 1.2k ohm U
						R606	J02225222	Carbon Film RES.	1/6W 2.2k ohm U
						S601	N4090103	Push Switch	
VR-C UNIT									
Symbol No.	Part No.	Description	Device						
	F2890106A	Printed Circuit Board			SW-C UNIT				
	C028906AA	PCB with Components			Symbol No.	Part No.	Description	Device	
D201	G2090379	Diode	1SS119				F2890103	Printed Circuit Board	
R201	J02225472	Carbon Film RES.	1/6W	4.7k ohm	UJ		C028903AA	PCB with Components	
VR201	J60800134	Potentiometer (VOX GAIN)	10KA			Q101	G3107331Q	Transistor	2SA733AQ
VR202	J60800136	Potentiometer (VOX DELAY)	500KA			R101	J02225474	Carbon Film RES.	1/6W 470k ohm U
VR203	J60800135	Potentiometer (VOX ANTI-TRIP)	10KB			S101	N4090104	Push Switch	
VR204	J60800137	Potentiometer (KEYER SPEED)	500KC			S102	N0190137	Rotary Switch	
S201	N0190144	Rotary Switch (AGC)				J101	P0090525	Connector	
S202	N0190142	Rotary Switch (SAT)				J102	P0090527	Connector	

PARTS LIST (FEX-736-220)

Symbol No.	Part No.	Description	Device
	L9190001	Ferrite Beads	
220MHz RF UNIT			
	F2898101	Printed Circuit Board	
	C028981AA	PCB With Component	
Q2001	G4801220L	FET	3SK122L
Q2002	G2090247	Diode	ND487C1-3R
Q2003	G4801220L	FET	3SK122L
Q2004	G4800810	FET	3SK81
Q2005	G3115280	Transistor	2SA1528
Q2006	G3802410G	FET	2SK241GR
Q2007	G3802410G	FET	2SK241GR
Q2008	G4801220L	FET	3SK122L
Q2009	G2090135	Diode	ND487C2-3R
Q2010	G3333550	Transistor	2SC3355
Q2011	G3090050	Transistor	2SC2407(1)
Q2012	G3207720Q	Transistor	2SB772Q
Q2013	G3207720Q	Transistor	2SB772Q
Q2014	G1090606	IC	LA6358
Q2015	G3115280	Transistor	2SA1528
Q2016	G3090079	Transistor	BA1A4P
Q2018	G3305350B	Transistor	2SC535B
Q2019	G3305350B	Transistor	2SC535B
Q2020	G3801250	FET	2SK125
D2001	G2060004	Diode	1SS270TJ
D2002	G2090027	Diode	1SS53
D2003	G2090027	Diode	1SS53
D2004	G2060004	Diode	1SS270TJ
D2005	G2090027	Diode	1SS53
D2006	G2090027	Diode	1SS53
D2007	G2060004	Diode	1SS270TJ
D2008	G2090027	Diode	1SS53
D2009	G2090027	Diode	1SS53
D2010	G2015550	Diode	1S1555
D2011	G2060004	Diode	1SS270TJ
R2034	J01225180	Carbon Film RES.	1/6W 18 ohm PJ
R2035	J01225331	Carbon Film RES.	1/6W 330 ohm PJ
R2036	J01225102	Carbon Film RES.	1/6W 1k ohm PJ
R2037	J01225221	Carbon Film RES.	1/6W 220 ohm PJ
R2038	J01225220	Carbon Film RES.	1/6W 22 ohm PJ
R2039	J01225100	Carbon Film RES.	1/6W 10 ohm PJ
R2040	J01225102	Carbon Film RES.	1/6W 1k ohm PJ
R2041	J01225103	Carbon Film RES.	1/6W 10k ohm PJ
R2042	J02225471	Carbon Film RES.	1/2W 470 ohm UJ
R2043	J02225103	Carbon Film RES.	1/6W 10k ohm UJ
R2044	J01275471	Carbon Film RES.	1/6W 470 ohm TJ
R2045	J01225473	Carbon Film RES.	1/6W 47k ohm PJ
R2046	J01225223	Carbon Film RES.	1/6W 22k ohm PJ
R2047	J01225223	Carbon Film RES.	1/6W 22k ohm PJ
R2048	J01225104	Carbon Film RES.	1/6W 100k ohm PJ
R2049	J01225473	Carbon Film RES.	1/6W 47k ohm PJ
R2050	J01225223	Carbon Film RES.	1/6W 22k ohm PJ
R2051	J01225103	Carbon Film RES.	1/6W 10k ohm PJ
R2052	J01225223	Carbon Film RES.	1/6W 22k ohm PJ
R2057	J01225223	Carbon Film RES.	1/6W 22k ohm PJ
R2058	J01225472	Carbon Film RES.	1/6W 4.7k ohm PJ
R2059	J01225102	Carbon Film RES.	1/6W 1k ohm PJ
R2060	J01225101	Carbon Film RES.	1/6W 100 ohm PJ
R2061	J01225470	Carbon Film RES.	1/6W 47 ohm PJ
R2062	J01225682	Carbon Film RES.	1/6W 6.8k ohm PJ
R2063	J01225223	Carbon Film RES.	1/6W 22k ohm PJ
R2064	J01225102	Carbon Film RES.	1/6W 1k ohm PJ
R2065	J01225101	Carbon Film RES.	1/6W 100 ohm PJ
R2066	J01225222	Carbon Film RES.	1/6W 2.2k ohm PJ
R2067	J01225560	Carbon Film RES.	1/6W 56 ohm PJ
R2068	J01225560	Carbon Film RES.	1/6W 56 ohm PJ
R2069	J01225221	Carbon Film RES.	1/6W 220 ohm PJ
R2070	J24205104	RES. Chip	1/10W 100k ohm
R2071	J24205560	RES. Chip	1/10W 56 ohm
R2072	J24205104	RES. Chip	1/10W 100k ohm
R2073	J01225331	Carbon Film RES.	1/6W 330 ohm PJ
C2001	K00175470	Ceramic CAP.	SL 50WV 47pF
C2003	K13179008	Ceramic CAP.	F 50WV 0.01uF
C2004	K12171102	Ceramic CAP.	E 50WV 0.001uF
C2005	K13179008	Ceramic CAP.	F 50WV 0.01uF
C2052			
C2053			
C2054			
C2055			
C2056			
C2057			
C2058			
C2059			
C2060			
C2061			
C2062			
C2063			
C2064			
C2065			
C2066			
C2067			
C2068			
C2069			
C2070			
C2072			
C2073			
C2074			
C2075			
C2076			
C2077			
C2078			
C2079			
C2080			
C2081			
C2082			
C2083			
C2084			
C2085			
C2086			
C2087			
C2088			
C2089			
C2090			
C2091			

D2012	G2060004	Diode	1SS270TJ			C2006	K13179008	Ceramic CAP.	F	50WV	0.01uF	C2092	K32
D2013	G2060004	Diode	1SS270TJ			C2007	K13179008	Ceramic CAP.	F	50WV	0.01uF	C2093	K057
D2014	G2060004	Diode	1SS270TJ			C2008	K13179008	Ceramic CAP.	F	50WV	0.01uF	C2094	K023
D2015	G2060004	Diode	1SS270TJ			C2009	K02172020	Ceramic CAP.	CK	50WV	3pF	C2095	K133
D2016	G2060004	Diode	1SS270TJ			C2010	K12171102	Ceramic CAP.	E	50WV	0.001uF	TC2002	K910
D2017	G2060004	Diode	1SS270TJ			C2011	K13179014	Ceramic CAP.	F	50WV	0.0047uF	T2001	L002
D2018	G2060004	Diode	1SS270TJ			C2013	K12171102	Ceramic CAP.	E	50WV	0.001uF	T2002	L002
						C2014	K13179008	Ceramic CAP.	F	50WV	0.01uF	T2003	L002
TH2001	G9090026	Thermistor				C2015	K10179024	Ceramic CAP.	B	50WV	0.01uF	T2004	L0021
TH2002	G9090020	Thermistor				C2016	K13179008	Ceramic CAP.	F	50WV	0.01uF	T2005	L0021
						C2017	K00175220	Ceramic CAP.	SL	50WV	25pF	T2006	L0021
XF2001	H1102122	XTAL Filter	47M20A1			C2018	K12171102	Ceramic CAP.	E	50WV	0.001uF	T2007	L0021
						C2019	K13179008	Ceramic CAP.	F	50WV	0.01uF	T2008	L0021
R2001	J01225473	Carbon Film RES.	1/6W 47k ohm	PJ		C2020	K05175150	Ceramic CAP.	RH	50WV	15pF	T2009	L0021
R2002	J01225225	Carbon Film RES.	1/6W 2.2M ohm	PJ		C2021	K02173100	Ceramic CAP.	CH	50WV	10pF	T2010	L0021
R2003	J01225470	Carbon Film RES.	1/6W 47 ohm	PJ		C2022	K13179008	Ceramic CAP.	F	50WV	0.01uF	T2011	L0021
R2004	J01225102	Carbon Film RES.	1/6W 1k ohm	PJ		C2023	K13179014	Ceramic CAP.	F	50WV	0.0047uF	T2012	L0021
R2005	J01225470	Carbon Film RES.	1/6W 47 ohm	PJ		C2024	K13179008	Ceramic CAP.	F	50WV	0.01uF	T2013	L0021
R2006	J01225151	Carbon Film RES.	1/6W 150 ohm	PJ		C2025	K13179014	Ceramic CAP.	F	50WV	0.0047uF	T2014	L0021
R2007	J01225331	Carbon Film RES.	1/6W 330 ohm	PJ		C2026	K13179008	Ceramic CAP.	F	50WV	0.01uF	T2015	L0021
R2008	J01225180	Carbon Film RES.	1/6W 18 ohm	PJ		C2027	K00173060	Ceramic CAP.	SL	50WV	8pF	T2016	L0021
R2009	J01225331	Carbon Film RES.	1/6W 330 ohm	PJ		C2028	K00173060	Ceramic CAP.	SL	50WV	8pF	T2017	L0021
R2010	J01225473	Carbon Film RES.	1/6W 47k ohm	PJ		C2029	K13179008	Ceramic CAP.	F	50WV	0.01uF	T2018	L0021
R2011	J01225473	Carbon Film RES.	1/6W 47k ohm	PJ		C2030	K13179008	Ceramic CAP.	F	50WV	0.01uF	L3001	L00214
R2012	J01225473	Carbon Film RES.	1/6W 47k ohm	PJ		C2031	K13179008	Ceramic CAP.	F	50WV	0.01uF	L3002	L119024
R2013	J01225470	Carbon Film RES.	1/6W 47 ohm	PJ		C2032	K02173100	Ceramic CAP.	CH	50WV	10pF	L3003	L119024
R2014	J01225470	Carbon Film RES.	1/6W 47 ohm	PJ		C2033	K02172050	Ceramic CAP.	CH	50WV	5pF	L3004	L119024
R2015	J01225473	Carbon Film RES.	1/6W 47k ohm	PJ		C2034	K13179008	Ceramic CAP.	F	50WV	0.01uF	L3005	L002034
R2016	J01225473	Carbon Film RES.	1/6W 47k ohm	PJ		C2035	K13179008	Ceramic CAP.	F	50WV	0.01uF	L3006	L002034
R2017	J01225470	Carbon Film RES.	1/6W 47 ohm	PJ		C2036	K13179008	Ceramic CAP.	F	50WV	0.01uF	L3007	L002072
R2018	J01225471	Carbon Film RES.	1/6W 470 ohm	PJ		C2038	K12171102	Ceramic CAP.	E	50WV	0.001uF	L3009	L002085
R2019	J01225470	Carbon Film RES.	1/6W 47 ohm	PJ		C2039	K12171102	Ceramic CAP.	E	50WV	0.001uF	L3010	L102067
R2020	J01225221	Carbon Film RES.	1/6W 220 ohm	PJ		C2040	K13179014	Ceramic CAP.	F	50WV	0.0047uF	L3011	L002085
R2021	J01225820	Carbon Film RES.	1/6W 82 ohm	PJ		C2042	K05173060	Ceramic CAP.	RH	50WV	8pF	L3012	L119024
R2022	J01225221	Carbon Film RES.	1/6W 220 ohm	PJ		C2043	K13179008	Ceramic CAP.	F	50WV	0.01uF	CV2001	L402008
R2023	J01225101	Carbon Film RES.	1/6W 100 ohm	PJ		C2044	K13179008	Ceramic CAP.	F	50WV	0.01uF	CV2002	L402008
R2024	J01225470	Carbon Film RES.	1/6W 47 ohm	PJ		C2045	K05172030	Ceramic CAP.	RJ	50WV	3pF	23001	P1090255
R2025	J01225560	Carbon Film RES.	1/6W 56 ohm	PJ		C2046	K05173090	Ceramic CAP.	RH	50WV	5pF	23002	P1090255
R2026	J01225473	Carbon Film RES.	1/6W 47k ohm	PJ		C2047	K40129004	AL. Electro. CAP.		16WV	100uF	23003	P0090525
R2027	J01225473	Carbon Film RES.	1/6W 47k ohm	PJ		C2048	K13179008	Ceramic CAP.	F	50WV	0.01uF	23004	P0090525
R2028	J01225333	Carbon Film RES.	1/6W 33k ohm	PJ		C2049	K13179008	Ceramic CAP.	F	50WV	0.01uF	23005	P0090527
R2029	J01225473	Carbon Film RES.	1/6W 47k ohm	PJ		C2050	K40129004	AL. Electro. CAP.		16WV	100uF	23006	P0090527
R2030	J01225223	Carbon Film RES.	1/6W 22k ohm	PJ		C2051	K13179008	Ceramic CAP.	F	50WV	0.01uF	23007	P1090210
R2031	J01225470	Carbon Film RES.	1/6W 47 ohm	PJ								23008	P1090210
R2032	J01225222	Carbon Film RES.	1/6W 2.2k ohm	PJ								23001	P1090255
R2033	J01225331	Carbon Film RES.	1/6W 330 ohm	PJ								23002	P1090255

(FEX-736-220) PARTS LIST

						220MHz PA UNIT			
						Symbol No.	Part No.	Description	Device
PJ	C2052	K40129004	AL. Electro. CAP.	16WV	10uF				
PJ	C2053	K13179008	Ceramic CAP.	F	50WV 0.01uF		F2899000	Printed Circuit Board	
PJ	C2054	K00173060	Ceramic CAP.	RH	50WV 6pF				
PJ	C2055	K05175120	Ceramic CAP.	RH	50WV 12pF		C028990AB	PCB With Components	
PJ	C2056	K40109001	AL. Electro. CAP.	10WV	100uF				
PJ	C2057	K70167104	Tantalum CAP.	35WV	0.1uF	Q3001	G1090797	IC	M67712
UJ	C2058	K13179008	Ceramic CAP.	F	50WV 0.01uF				
UJ	C2059	K12171102	Ceramic CAP.	E	50WV 0.001uF	D3001	G2090337	Diode	MI308
TJ	C2060	K12171102	Ceramic CAP.	E	50WV 0.001uF	D3002	G2090344	Diode	1SV178
PJ	C2061	K00175470	Ceramic CAP.	SL	50WV 47pF	D3003	G2090344	Diode	1SV178
PJ	C2062	K13179008	Ceramic CAP.	F	50WV 0.01uF	D3004	G2090118	Diode	1SS97
PJ	C2063	K00175470	Ceramic CAP.	SL	50WV 47pF	D3005	G2090118	Diode	1SS97
PJ	C2064	K10176101	Ceramic CAP.	B	50WV 100pF				
PJ	C2065	K10176101	Ceramic CAP.	B	50WV 100pF	R3001	J31309002	RES.	1W 0.1 ohm
PJ	C2066	K12171102	Ceramic CAP.	E	50WV 0.001uF	R3002	J31309002	RES.	1W 0.1 ohm
PJ	C2067	K12171102	Ceramic CAP.	E	50WV 0.001uF	R3003	J01275151	Carbon Film RES.	1/2W 150 ohm TJ
PJ	C2068	K12171102	Ceramic CAP.	E	50WV 0.001uF	R3004	J02245103	Carbon Film RES.	1/4W 10k ohm SJ
PJ	C2069	K10176101	Ceramic CAP.	B	50WV 100pF	R3005	J02245103	Carbon Film RES.	1/4W 10k ohm SJ
PJ	C2070	K00173100	Ceramic CAP.	SL	50WV 10pF				
PJ	C2072	K12171102	Ceramic CAP.	E	50WV 0.001uF	C3002	K10176102	Ceramic CAP.	B 50WV 0.001uF
PJ	C2073	K13179008	Ceramic CAP.	F	50WV 0.01uF	C3003	K13179008	Ceramic CAP.	F 50WV 0.01uF
PJ	C2074	K13179008	Ceramic CAP.	F	50WV 0.01uF	C3004	K40129004	AL. Electro. CAP.	16WV 10uF
PJ	C2075	K13179008	Ceramic CAP.	F	50WV 0.01uF				
PJ	C2076	K02172059	Ceramic CAP.	CK	50WV 0.5pF	C3005	K10176102	Ceramic CAP.	B 50WV 0.001uF
PJ	C2077	K00175470	Ceramic CAP.	SL	50WV 47pF	C3006	K13179008	Ceramic CAP.	F 50WV 0.01uF
PJ	C2078	K13179008	Ceramic CAP.	F	50WV 0.01uF	C3007	K40129004	AL. Electro. CAP.	16WV 10uF
PJ	C2079	K13179008	Ceramic CAP.	F	50WV 0.01uF				
PJ	C2080	K13179008	Ceramic CAP.	F	50WV 0.01uF	C3008	K10176102	Ceramic CAP.	B 50WV 0.001uF
PJ	C2081	K13179008	Ceramic CAP.	F	50WV 0.01uF	C3009	K13179008	Ceramic CAP.	F 50WV 0.01uF
PJ	C2082	K13179008	Ceramic CAP.	F	50WV 0.01uF	C3010	K40129004	AL. Electro. CAP.	16WV 10uF
	C2083	K13179008	Ceramic CAP.	F	50WV 0.01uF				
	C2084	K13179008	Ceramic CAP.	F	50WV 0.01uF	C3011	K02173100	Ceramic CAP.	CH 50WV 10pF
	C2085	K13179008	Ceramic CAP.	F	50WV 0.01uF	C3013	K02175180	Ceramic CAP.	CH 50WV 18pF
PJ	C2086	K13179008	Ceramic CAP.	F	50WV 0.01uF	C3014	K02179001	Ceramic CAP.	CK 50WV 1pF
	C2087	K02172059	Ceramic CAP.	CK	50WV 0.5pF	C3016	K02173100	Ceramic CAP.	CH 50WV 10pF
	C2088	K02172059	Ceramic CAP.	CK	50WV 0.5pF	C3017	K02179001	Ceramic CAP.	CK 50WV 1pF
	C2089	K02173060	Ceramic CAP.	CH	50WV 6pF	C3018	K02173100	Ceramic CAP.	CH 50WV 10pF
	C2090	K22170239	CAP. Chip	CH	50WV 150pF	C3019	K02173100	Ceramic CAP.	CH 50WV 10pF
	C2091	K22170239	CAP. Chip	CH	50WV 150pF	C3020	K02173100	Ceramic CAP.	CH 50WV 10pF
	C2092	K22140803	CAP. Chip	B	25WV 0.01uF	C3021	K02173100	Ceramic CAP.	CH 50WV 10pF
	C2093	K05172030	Ceramic CAP.	RJ	50WV 3pF	C3022	K02173100	Ceramic CAP.	CH 50WV 10pF
	C2094	K02179009	Ceramic CAP.	CH	50WV 22pF	C3023	K02173100	Ceramic CAP.	CH 50WV 10pF
	C2095	K13179009	Ceramic CAP.	F	50WV 0.047uF	C3024	K02173100	Ceramic CAP.	CH 50WV 10pF
						C3025	K02173150	Ceramic CAP.	CH 50WV 15pF
	C23002	K91000028	Variable CAP.	10pF		C3027	K10176102	Ceramic CAP.	B 50WV 0.001uF
						C3028	K10176102	Ceramic CAP.	B 50WV 0.001uF
	C23001	L0021748	Coil			C3029	K10176102	Ceramic CAP.	B 50WV 0.001uF
	C23002	L0021718	Coil			C3030	K10176102	Ceramic CAP.	B 50WV 0.001uF
	C23003	L0021718	Coil			C3031	K10176102	Ceramic CAP.	B 50WV 0.001uF
	C23004	L0021740	Coil			C3032	K10176102	Ceramic CAP.	B 50WV 0.001uF
	C23005	L0021740	Coil			C3034	K21170002	Feed Through	50WV 0.001uF

0.01uF	306	L0021740	Coil			CAP.		
15pF	307	L0021165	Coil		C3035	K21170002	Feed Through CAP.	50WV 0.001uF
10pF	308	L0021735	Coil					
0.01uF	309	L0021735	Coil		C3036	K21170002	Feed Through CAP.	50WV 0.001uF
0.0047uF	310	L0021736	Coil					
0.01uF	311	L0021740	Coil		C3037	K21170002	Feed Through CAP.	50WV 0.001uF
0.0047uF	312	L0021740	Coil					
0.01uF	313	L0021740	Coil		C3038	K21170002	Feed Through CAP.	50WV 0.001uF
6pF	314	L0021718	Coil					
6pF	315	L0021718	Coil					
0.01uF	316	L0021165	Coil		L3001	L1020469	RFC	
0.01uF	317	L0021165	Coil		L3002	L1020469	RFC	
0.01uF	318	L0021165	Coil		L3003	L1020663	RFC	
10pF					L3004	L0021647	Coil	
5pF	321	L0021457	Coil		L3005	L0021647	Coil	
0.01uF	322	L1190246	M. RFC	1uH	L3006	L0021149	Coil	
0.01uF	323	L1190258	M. RFC	10uH	L3007	L0021647	Coil	
0.01uF	324	L1190246	M. RFC	1uH	L3008	L0021647	Coil	
0.001uF	325	L0020342	Coil		L3009	L0021647	Coil	
0.001uF	326	L0020340	Coil		L3010	L1190250	M. RFC	2.2uH
0.0047uF	327	L0020725	Coil		L3011	L1190250	M. RFC	2.2uH
6pF	328	L0020852	Coil					
0.01uF	329	L1020673	RFC		J3001	P1090352	Connector	
0.01uF	330	L0020852	Coil					
3pF	331	L1190244	M. RFC	0.68uH		Q5000036	TP-G	MK-1095
9pF								
10uF	332	L4020085	Helical Resonator			T9307003	Wire ASSY	
0.01uF	333	L4020085	Helical Resonator			T9205537	Wire ASSY	
0.01uF								
10uF						S6000138	Beads	
0.01uF	334	P1090255	Connector			R4083840B	Booster Heatsink	
	335	P1090255	Connector			R0083800B	Booster Cover A	
	336	P0090525	Connector			R0083810B	Booster Cover B	
	337	P0090527	Connector			R7043900	Insulator Board B	
	338	P0090527	Connector					
	339	P1090210	Connector					
	340	P1090210	Connector					
		T9205551	Wire ASSY					
		R0056640	PLL IF Shield					

PARTS LIST (FEX-736-1.2)

MAIN CHASSIS				R1002	J24205474	RES. Chip	1/10W 470k ohm		
Symbol No.	Part No.	Description	Device	R1003	J24205474	RES. Chip	1/10W 470k ohm	R1089	J24
	R0804800	Chassis		R1004	J24205474	RES. Chip	1/10W 470k ohm	R1090	J01
	R0511100A	Shield Cover		R1005	J24205474	RES. Chip	1/10W 470k ohm	R1091	J24

Symbol No.	Part No.	Description	Device	RES. Chip	1/10W 470k ohm	R1092	J24		
	R0511110	Shield Cover		R1006	J24205474	RES. Chip	1/10W 470k ohm	R1092	J24
	R8123060	Seal		R1007	J24205333	RES. Chip	1/10W 33k ohm	R1093	J24
	R0124540	Heatsink Plate		R1008	J24205333	RES. Chip	1/10W 33k ohm	R1094	J24
	S5000057	Lead Clamper	L=38	R1009	J24205333	RES. Chip	1/10W 33k ohm	R1095	J24
				R1010	J24205333	RES. Chip	1/10W 33k ohm	R1096	J01
				R1011	J24205333	RES. Chip	1/10W 33k ohm	R1097	J24
				R1012	J24205333	RES. Chip	1/10W 33k ohm	R1098	J01
				R1013	J24205102	RES. Chip	1/10W 1k ohm	R1099	J24
				R1014	J24205562	RES. Chip	1/10W 5.6k ohm	R1100	J24
				R1015	J24205101	RES. Chip	1/10W 100 ohm	R1101	J24
				R1016	J24205102	RES. Chip	1/10W 1k ohm	R1102	J24
				R1017	J24205562	RES. Chip	1/10W 5.6k ohm	R1103	J24
				R1018	J01225101	Carbon Film RES.	1/6W 100 ohm	R1104	J24
				R1019	J24205102	RES. Chip	1/10W 1k ohm	R1105	J24
				R1020	J24205222	RES. Chip	1/10W 2.2k ohm	R1106	J24
				R1021	J24205103	RES. Chip	1/10W 10k ohm	R1107	J24
				R1022	J24205103	RES. Chip	1/10W 10k ohm	R1108	J24
				R1023	J24205152	RES. Chip	1/10W 1.5k ohm	R1109	J01
				R1024	J24205222	RES. Chip	1/10W 2.2k ohm	R1110	J24
				R1025	J01225471	Carbon Film RES.	1/6W 470 ohm	R1111	J24
				R1026	J24205102	RES. Chip	1/10W 1k ohm	R1112	J24
				R1027	J24205104	RES. Chip	1/10W 100k ohm	R1113	J24
				R1028	J24205104	RES. Chip	1/10W 100k ohm	R1114	J24
				R1029	J24205330	RES. Chip	1/10W 33 ohm	R1115	J24
				R1030	J24205221	RES. Chip	1/10W 220 ohm		
				R1031	J24205103	RES. Chip	1/10W 10k ohm	C1001	K22
				R1032	J24205332	RES. Chip	1/10W 3.3k ohm	C1002	K22
				R1033	J24205471	RES. Chip	1/10W 470 ohm	C1003	K22
				R1034	J24205152	RES. Chip	1/10W 1.5k ohm	C1004	K22
				R1035	J24205470	RES. Chip	1/10W 47 ohm	C1005	K22
				R1036	J24205683	RES. Chip	1/10W 68k ohm	C1006	K22
				R1037	J24205221	RES. Chip	1/10W 220 ohm	C1007	K22
				R1038	J24205102	RES. Chip	1/10W 1k ohm	C1008	K22
				R1039	J24205683	RES. Chip	1/10W 68k ohm	C1009	K22
				R1040	J24205221	RES. Chip	1/10W 220 ohm	C1010	K22
				R1041	J24205222	RES. Chip	1/10W 2.2k ohm	C1011	K22
				R1042	J24205101	RES. Chip	1/10W 100 ohm	C1012	K22
				R1043	J24205223	RES. Chip	1/10W 22k ohm	C1013	K22
				R1044	J24205222	RES. Chip	1/10W 2.2k ohm	C1014	K22
				R1045	J24205101	RES. Chip	1/10W 100 ohm	C1015	K22
				R1046	J24205101	RES. Chip	1/10W 100 ohm	C1016	K22
				R1047	J24205102	RES. Chip	1/10W 1k ohm	C1017	K22
				R1048	J24205101	RES. Chip	1/10W 100 ohm	C1018	K22
				R1049	J24205102	RES. Chip	1/10W 1k ohm	C1019	K22
				R1050	J24205562	RES. Chip	1/10W 5.6k ohm	C1020	K22
				R1051	J24205102	RES. Chip	1/10W 1k ohm	C1021	K22
				R1052	J24205332	RES. Chip	1/10W 3.3k ohm	C1022	K22
				R1053	J24205560	RES. Chip	1/10W 56 ohm	C1023	K22
				R1054	J24205472	RES. Chip	1/10W 4.7k ohm	C1024	K22
				R1055	J24205103	RES. Chip	1/10W 10k ohm	C1025	K22
				R1056	J24205222	RES. Chip	1/10W 2.2k ohm	C1026	K22
				R1057	J24205104	RES. Chip	1/10W 100k ohm	C1027	K22
				R1058	J24205222	RES. Chip	1/10W 2.2k ohm	C1028	K401
				R1059	J24205472	RES. Chip	1/10W 4.7k ohm		
				R1060	J24205472	RES. Chip	1/10W 4.7k ohm	C1029	K22
				R1061	J24205152	RES. Chip	1/10W 1.5k ohm	C1030	K22
				R1062	J24205101	RES. Chip	1/10W 100 ohm	C1031	K22
				R1063	J01225470	Carbon Film RES.	1/6W 47 ohm	C1032	K701
				R1064	J24205471	RES. Chip	1/10W 470 ohm	C1033	K191
				R1065	J24205471	RES. Chip	1/10W 470 ohm	C1034	K191
				R1066	J24205102	RES. Chip	1/10W 1k ohm	C1035	K22
								C1036	K22

D1001	G2090408	Diode	1SS270	R1067	J24205472	RES. Chip	1/10W 4.7k ohm	C1037	K401
D1002	G2090408	Diode	1SS270	R1068	J24205330	RES. Chip	1/10W 33 ohm	C1038	K221
D1003(F)	G2090408	Diode	1SS270	R1069	J24205221	RES. Chip	1/10W 220 ohm	C1039	K221
D1004	G2090408	Diode	1SS270	R1070	J01225100	Carbon Film RES.	1/6W 10 ohm	C1040	K221
D1004	G2090408	Diode	1SS270	R1071	J24205101	RES. Chip	1/10W 100 ohm	C1041	K221
D1005	G2090408	Diode	1SS270	R1072	J24205471	RES. Chip	1/10W 470 ohm	C1042	K221
D1006	G2090408	Diode	1SS270	R1073	J01225470	Carbon Film RES.	1/6W 47 ohm	C1043	K221
D1006	G2090408	Diode	1SS270	R1074	J24205101	RES. Chip	1/10W 100 ohm	C1044	K221
D1007(B)	G2090408	Diode	1SS270	R1075	J24205222	RES. Chip	1/10W 2.2k ohm	C1045	K221
D1008	G2090408	Diode	1SS270	R1076	J24205103	RES. Chip	1/10W 10k ohm	C1046	K221
D1009	G2090271	Diode	1T33	R1077	J24205103	RES. Chip	1/10W 10k ohm	C1047	K221
D1010	G2090271	Diode	1T33	R1078	J01225104	Carbon Film RES.	1/6W 100k ohm	C1048	K221
D1011	G2090384	Diode	HZ7C2	R1079	J24205473	RES. Chip	1/10W 47k ohm	C1049	K221
D1012	G2022080	Diode	1S2208	R1080	J24205103	RES. Chip	1/10W 10k ohm	C1050	K221
D1013	G2090248	Diode	1T32	R1081	J24205152	RES. Chip	1/10W 1.5k ohm	C1051	K221
				R1082	J24205681	RES. Chip	1/10W 680 ohm	C1052	K221
X1001	H0102844	XTAL	HC-49/U-3P 71.690 MHz	R1083	J01225151	Carbon Film RES.	1/6W 150 ohm	C1053	K221
				R1084	J24205102	RES. Chip	1/10W 1k ohm	C1054	K221
XM1001	Q7000072	VCO Module	ENF-VCO 06A01	R1085	J01225470	Carbon Film RES.	1/6W 47 ohm	C1055	K221
				R1086	J24205181	RES. Chip	1/10W 180 ohm	C1056	K221
R1001	J24205474	RES. Chip	1/10W 470k ohm	R1087	J24205680	RES. Chip	1/10W 68 ohm	C1057	K221
				R1088	J24205331	RES. Chip	1/10W 330 ohm		

(FEX-736-1.2) PARTS LIST

11089	J24205182	RES. Chip	1/10W 1.8k ohm	C1058	K22170210	CAP. Chip	CH	50WV	9pF
11090	J01225331	Carbon Film RES.	1/6W 330 ohm	C1059	K22170215	CAP. Chip	CH	50WV	15pF
11091	J24205102	RES. Chip	1/10W 1k ohm	C1060	K22170210	CAP. Chip	CH	50WV	9pF
11092	J24205562	RES. Chip	1/10W 5.6k ohm	C1061	K22170202	CAP. Chip	CH	50WV	1pF
11093	J24205101	RES. Chip	1/10W 100 ohm	C1062	K22170210	CAP. Chip	CH	50WV	9pF
11094	J24205151	RES. Chip	1/10W 150 ohm	C1063	K22170210	CAP. Chip	CH	50WV	9pF
11095	J24205222	RES. Chip	1/10W 2.2k ohm	C1064	K22170817	CAP. Chip	B	50WV	0.01uF
11096	J01225334	Carbon Film RES.	1/6W 330k ohm	PJ	C1065	K22170817	CAP. Chip	B	50WV 0.01uF
11097	J24205104	RES. Chip	1/10W 100k ohm	C1066	K40179007	AL. Electro. CAP.		50WV	3.3uF
11098	J01225101	Carbon Film RES.	1/6W 100 ohm	PJ					
11099	J24205221	RES. Chip	1/10W 220 ohm	C1067	K22170817	CAP. Chip	B	50WV	0.01uF
11100	J24205103	RES. Chip	1/10W 10k ohm	C1068	K40129004	AL. Electro. CAP.		16WV	10uF
11101	J24205103	RES. Chip	1/10W 10k ohm						
11102	J24205101	RES. Chip	1/10W 100 ohm	C1070	K22170203	CAP. Chip	CH	50WV	2pF
11103	J24205471	RES. Chip	1/10W 470 ohm	C1071	K22170813	CAP. Chip	B	50WV	0.0047uF

m	PJ	J24205103	RES. Chip	1/10W	10k ohm		C1072	K22170813	CAP. Chip	B	50WV	0.0047uF
m		J24205101	RES. Chip	1/10W	100 ohm		C1073	K22141809	CAP. Chip	B	25WV	0.1uF
m		J24205103	RES. Chip	1/10W	10k ohm		C1074	K22141809	CAP. Chip	B	25WV	0.1uF
m		J24205222	RES. Chip	1/10W	2.2k ohm		C1075	K40129004	AL. Electro. CAP.		16WV	10uF
m		J24205223	RES. Chip	1/10W	22k ohm							
m		J01225151	Carbon Film RES.	1/6W	150 ohm	PJ	C1076	K22141809	CAP. Chip	B	25WV	0.1uF
m		J24205101	RES. Chip	1/10W	100 ohm		C1077	K40129004	AL. Electro. CAP.		16WV	10uF
m	PJ	J24205000	RES. Chip	1/10W	0 ohm							
m		J24205000	RES. Chip	1/10W	0 ohm		C1078	K40129004	AL. Electro. CAP.		16WV	10uF
m		J24205000	RES. Chip	1/10W	0 ohm							
m		J24205103	RES. Chip	1/10W	10k ohm		C1079	K22141809	CAP. Chip	B	25WV	0.1uF
m		J24205103	RES. Chip	1/10W	10k ohm		C1080	K40109024	AL. Electro. CAP.		10WV	100uF
m												
m		K22170235	CAP. Chip	CH	50WV	100pF	C1081	K70167104	Tantalum CAP.		35WV	0.1uF
m		K22170235	CAP. Chip	CH	50WV	100pF	C1084	K22170306	CAP. Chip	UJ	50WV	5pF
m		K22170235	CAP. Chip	CH	50WV	100pF	C1085	K22170223	CAP. Chip	CH	50WV	33pF
m		K22170235	CAP. Chip	CH	50WV	100pF	C1086	K22170227	CAP. Chip	CH	50WV	47pF
m		K22170235	CAP. Chip	CH	50WV	100pF	C1087	K22170817	CAP. Chip	B	50WV	0.01uF
m		K22170235	CAP. Chip	CH	50WV	100pF	C1088	K22170210	CAP. Chip	CH	50WV	9pF
m		K22170235	CAP. Chip	CH	50WV	100pF	C1089	K22170817	CAP. Chip	B	50WV	0.01uF
m		K22170235	CAP. Chip	CH	50WV	100pF	C1090	K22170805	CAP. Chip	B	50WV	0.001uF
m		K22170235	CAP. Chip	CH	50WV	100pF	C1091	K22170817	CAP. Chip	B	50WV	0.01uF
m		K22170235	CAP. Chip	CH	50WV	100pF	C1092	K22170817	CAP. Chip	B	50WV	0.01uF
m		K22170235	CAP. Chip	CH	50WV	100pF	C1093	K22170206	CAP. Chip	CH	50WV	5pF
m		K22170235	CAP. Chip	CH	50WV	100pF	C1094	K22170210	CAP. Chip	CH	50WV	9pF
m		K22170235	CAP. Chip	CH	50WV	100pF	C1095	K22170817	CAP. Chip	B	50WV	0.01uF
m		K22170235	CAP. Chip	CH	50WV	100pF	C1096	K22170215	CAP. Chip	CH	50WV	15pF
m		K22170235	CAP. Chip	CH	50WV	100pF	C1097	K22170817	CAP. Chip	CH	50WV	0.01uF
m		K22170235	CAP. Chip	CH	50WV	100pF	C1098	K22170235	CAP. Chip	CH	50WV	100pF
m		K22170219	CAP. Chip	CH	50WV	22pF	C1099	K22170817	CAP. Chip	B	50WV	0.01uF
m		K22170229	CAP. Chip	CH	50WV	56pF	C1100	K22170235	CAP. Chip	CH	50WV	100pF
m		K22170817	CAP. Chip	B	50WV	0.01uF	C1101	K22170805	CAP. Chip	B	50WV	0.001uF
m		K22170211	CAP. Chip	CH	50WV	10pF	C1102	K22170817	CAP. Chip	B	50WV	0.01uF
m		K22170229	CAP. Chip	CH	50WV	56pF	C1103	K22170235	CAP. Chip	CH	50WV	100pF
m		K22170817	CAP. Chip	B	50WV	0.01uF	C1104	K22170235	CAP. Chip	CH	50WV	100pF
m		K22170813	CAP. Chip	B	50WV	0.0047uF	C1105	K22170805	CAP. Chip	B	50WV	0.001uF
m		K22141809	CAP. Chip	B	25WV	0.1uF	C1106	K22170805	CAP. Chip	B	50WV	0.001uF
m		K22170805	CAP. Chip	B	50WV	0.01uF	C1107	K22170805	CAP. Chip	B	50WV	0.001uF
m		K22170805	CAP. Chip	B	50WV	0.01uF	C1111	K22170805	CAP. Chip	B	50WV	0.001uF
m		K22170805	CAP. Chip	B	50WV	0.01uF	C1112	K22170805	CAP. Chip	B	50WV	0.001uF
m		K40109024	AL. Electro. CAP.		10WV	100uF	C1113	K22170219	CAP. Chip	CH	50WV	22pF
m							C1114	K22170219	CAP. Chip	CH	50WV	22pF
m		K22141809	CAP. Chip	B	25WV	0.1uF	C1115	K22170817	CAP. Chip	B	50WV	0.01uF
m		K22170817	CAP. Chip	B	50WV	0.01uF	C1116	K22141809	CAP. Chip		25WV	0.1uF
m		K22170805	CAP. Chip	B	50WV	0.001uF	C1117	K22170817	CAP. Chip	B	50WV	0.01uF
m	PJ	K70167334	Tantalum CAP.		35WV	0.33uF	C1119	K22170805	CAP. Chip	B	50WV	0.001uF
m		K19149021	Ceramic CAP.		25WV	0.047uF	C1120	K22170805	CAP. Chip	B	50WV	0.001uF
m		K19149021	Ceramic CAP.		25WV	0.047uF	C1122	K22170805	CAP. Chip	B	50WV	0.001uF
m		K22170817	CAP. Chip	B	50WV	0.01uF	C1123	K22170805	CAP. Chip	B	50WV	0.001uF
m		K22170805	CAP. Chip	B	50WV	0.001uF	C1124	K22170817	CAP. Chip	B	50WV	0.01uF
m		K40109024	AL. Electro. CAP.		10WV	100uF	C1125	K40179013	AL. Electro. CAP.		50WV	1uF
m		K22170813	CAP. Chip	B	50WV	0.0047uF	C1126	K40179013	AL. Electro. CAP.		50WV	1uF
m		K22170209	CAP. Chip	CH	50WV	8pF						
m		K22170215	CAP. Chip	CH	50WV	15pF	C1127	K22170817	CAP. Chip	B	50WV	0.01uF
m	PJ	K22170201	CAP. Chip	CH	50WV	0.5pF	C1128	K40109024	AL. Electro. CAP.		10WV	100uF
m		K22170205	CAP. Chip	CH	50WV	4pF						
m		K22170813	CAP. Chip	B	50WV	0.0047uF	C1129	K22141809	CAP. Chip	B	25WV	0.1uF
m		K22170203	CAP. Chip	CH	50WV	2pF	C1130	K70137225	Tantalum CAP.		20WV	2.2uF
m		K22170203	CAP. Chip	CH	50WV	2pF	C1131	K19149025	Ceramic CAP.		25WV	0.1uF
m	PJ	K22170813	CAP. Chip	B	50WV	0.0047uF	C1132	K22170805	CAP. Chip	B	50WV	0.001uF
m		K22170813	CAP. Chip	B	50WV	0.0047uF	C1133	K19149025	Ceramic CAP.		25WV	0.1uF
m		K22141809	CAP. Chip	B	25WV	0.1uF	C1134	K22170805	CAP. Chip	CH	50WV	0.01uF

hm		K22141809	CAP. Chip	B	25WV	0.1uF	C1135	K22170805	CAP. Chip	B	50WV	0.001uF
hm		K22170813	CAP. Chip	B	50WV	0.0047uF	C1136	K22170235	CAP. Chip	CH	50WV	100pF
hm	PJ	K22170813	CAP. Chip	B	50WV	0.0047uF	C1137	K40109004	AL. Electro.		10WV	470uF
hm		K22170805	CAP. Chip	B	50WV	0.001uF			CAP.			
hm	PJ	K22170817	CAP. Chip	B	50WV	0.01uF	C1138	K22170805	CAP. Chip	B	50WV	0.001uF
hm		K22170805	CAP. Chip	B	50WV	0.001uF	C1139	K22170235	CAP. Chip	CH	50WV	100pF
hm		K22170817	CAP. Chip	B	50WV	0.01uF	C1140	K22170817	CAP. Chip	B	50WV	0.01uF
hm		K22170805	CAP. Chip	B	50WV	0.001uF	C1141	K22170204	CAP. Chip	CH	50WV	3pF
hm		K22170805	CAP. Chip	B	50WV	0.001uF	C1142	K22170204	CAP. Chip	CH	50WV	3pF

PARTS LIST (FEX-736-1.2)

C1143	K22170805	CAP. Chip	B	50WV	0.001uF	TP1001	Q5000036	TP-G	MK-1095	R2008
C1144	K22170205	CAP. Chip	CH	50WV	4pF					R2009
C1145	K22170213	CAP. Chip	CH	50WV	12pF		L9190001	Ferrite Beads		R2010
C1146	K22170817	CAP. Chip	B	50WV	0.01uF					R2011
C1147	K22170229	CAP. Chip	CH	50WV	56pF		R0511090	Shield Case		R2012
C1148	K40129004	AL. Electro. CAP.		16WV	10uF		R0062770B	VCO Case A		R2013
C1149	K22170817	CAP. Chip	B	50WV	0.01uF		R0062780A	VCO Case Lid		R2014
C1150	K22170817	CAP. Chip	B	50WV	0.01uF		R0122640	Shield Plate		R2015
C1151	K22170817	CAP. Chip	B	50WV	0.01uF		R0115290	Shield Case		R2016
C1152	K22141809	CAP. Chip	B	25WV	0.1uF		R0115300	Shield Lid		R2017
C1153	K22170817	CAP. Chip	B	50WV	0.01uF		R0125180	Shield Plate		R2018
C1154	K22170805	CAP. Chip	B	50WV	0.001uF		R0125280	Shield Plate		R2019
C1156	K22170205	CAP. Chip	CH	50WV	4pF		L9190016	Shield Case		R2020
C1157	K22170223	CAP. Chip	CH	50WV	33pF					R2021
C1158	K22170219	CAP. Chip	CH	50WV	22pF					R2022
C1159	K22170325	CAP. Chip	UJ	50WV	39pF					R2023
C1160	K40109015	AL. Electro. CAP.		10WV	100uF					R2024
C1161	K22170817	CAP. Chip	B	50WV	0.01uF					R2025
C1162	K22170201	CAP. Chip	CH	50WV	0.5pF					R2026
C1163	K22170817	CAP. Chip	B	50WV	0.01uF					R2027
C1164	K22170817	CAP. Chip	B	50WV	0.01uF					R2028
C1165	K22170202	CAP. Chip	CH	50WV	1pF					R2029
C1166	K22170817	CAP. Chip	B	50WV	0.01uF					R2031
C1167	K22170235	CAP. Chip	CH	50WV	100pF					R2032
C1168	K40109002	AL. Electro.		10WV	47uF					R2033
										R2034
										R2035

1200MHz RF UNIT			
Symbol No.	Part No.	Description	Device
	F2952000A	Printed Circuit Board	
	C029520AA	PCB with Components.	
Q2001	G4801647O	FET	3SK1640 T7
Q2002	G3333567	Transistor	2SC3356 T2B
Q2003	G4801657O	FET	3SK1650 T7
Q2004	G4801220L	FET	3SK122L
Q2005	G1090606	IC	LA6358

		CAP.				Q2006	G3115280	Transistor	2SA1528	R2036	J1
C1169	K22170805	CAP. Chip	B	50WV	0.001uF	Q2007	G3070001	Transistor	FA1A4M T2B	R2037	J1
C1170	K22170805	CAP. Chip	B	50WV	0.001uF	Q2008	G3108127F	Transistor	2SA812 T2BM6B	R2038	J1
C1171	K40109002	AL. Electro. CAP.		10WV	47uF	Q2009	G3108127F	Transistor	2SA812 T2BM6B		
C1172	K22170203	CAP. Chip	CH	50WV	2pF	Q2010	G3108127F	Transistor	2SA812 T2BM6B	R2039	J1
C1173	K22170817	CAP. Chip	B	50WV	0.01uF	Q2011	G3070001	Transistor	FA1A4M T2B	R2040	J1
C1174	K40109004	AL. Electro. CAP.		10WV	470uF	Q2012	G3333567	Transistor	2SC3356	R2041	J1
C1175	K22170805	CAP. Chip	B	50WV	0.001uF	Q2013	G3326207B	Transistor	2SC2620QBTR	R2042	J1
C1176	K22170150	CAP. Chip	CH	50WV	15pF	Q2014	G4801220L	FET	3SK122L	R2043	J1
C1177	K22170205	CAP. Chip	CH	50WV	4pF	Q2015	G3803027G	FET	2SK302GR TE85R	R2044	J1
C1178	K22170805	CAP. Chip	B	50WV	0.001uF	Q2016	G3803027G	FET	2SK302GR TE85R	R2045	J1
C1179	K22170805	CAP. Chip	B	50WV	0.001uF	Q2017	G3803027G	FET	2SK302GR TE85R	R2046	J1
C1180	K22170205	CAP. Chip	CH	50WV	1pF	Q2018	G4801220L	FET	3SK122L	R2047	J1
						Q2019	Q7000077	Double-Balanced -MIX	DM-600A24	R2048	J1
						Q2020	G1090822	IC	uPC1659G	R2049	J1
TC1001	K91000158	Variable CAP.	6pF			Q2021	G1090778	IC	L7809	R2050	J1
						Q2022	G1090823	IC	M67715	R2051	J1
T1001	L0020907	Coil				Q2023	G3211340R	Transistor	2SB1134R	R2052	J1
T1002	L0020907	Coil				Q2024	G3207720P	Transistor	2SB772P	R2053	J1
T1003	L0020907	Coil				Q2025	G3416670R	Transistor	2SD1667R	R2054	J1
T1004	L0020907	Coil				Q2026	G3316237F	Transistor	2SC1623 T2B-L6	R2055	J0
T1005	L0020907	Coil				Q2027	G3070014	Transistor	FA1L4L T2B	R2056	J1
T1006	L0020907	Coil								R2057	J1
						D2001	G2090344	Diode	1SV178	R2058	J1
L1001	L1190189	M. RFC	1mH			D2002	G2090408	Diode	1SS270	R2059	J1
L1002	L1190148	M. RFC	10uH			D2003	G2090408	Diode	1SS270	R2060	J1
L1003	L1190149	M. RFC	1uH			D2004	G2090408	Diode	1SS270	R2061	J1
L1004	L1190149	M. RFC	1uH			D2005	G2070001	Diode	1SS188 TE85R	R2062	J1
L1005	L1190149	M. RFC	1uH			D2006	G2090408	Diode	1SS270	R2063	J1
L1006	L1190189	M. RFC	1mH			D2007	G2090408	Diode	1SS270	R2064	J1
L1007	L1190218	M. RFC	100uH			D2008	G2090027	Diode	1SS53	R2065	J0
L1008	L0190138	Coil				D2009	G2090297	Diode	1SS110	R2066	J1
L1009	L1190218	M. RFC	100uH			D2010	G2090408	Diode	1SS270	R2067	J1
L1010	L1190218	M. RFC	100uH			D2011	G2090027	Diode	1SS53	R2068	J1
L1011	L1190218	M. RFC	100uH			D2012	G2090027	Diode	1SS53	R2069	J1
L1012	L1190123	M. RFC	3.9mH			D2013	G2090027	Diode	1SS53	R2070	J1
L1013	L0021205	Coil	0.7uH			D2014	G2090027	Diode	1SS53	R2071	J1
L1014	L1190192	M. RFC	0.47uH			D2015	G2090344	Diode	1SV178	R2072	J1
L1015	L0020678	Coil				D2016	G2090408	Diode	1SS270	R2073	J0
L1016	L1190218	M. RFC	100uH			D2017	G2090027	Diode	1SS53	R2074	J1
L1017	L0021457	Coil				D2018	G2090027	Diode	1SS53	R2075	J0
L1019	L1190218	M. RFC	100uH			D2019	G2090306	Diode	10E1	R2076	J1
L1020	L1190149	M. RFC	1uH			D2020	G2090306	Diode	10E1	R2077	J1
L1021	L1190218	M. RFC	100uH			D2021	G2090408	Diode	1SS270	R2078	J1
L1022	L1190218	M. RFC	100uH			D2022	G2090408	Diode	1SS270	R2079	J1
L1023	L0190211	Coil								R2080	J1
L1024	L1190200	M. RFC	2.7uH			TH2001	G9090020	Thermistor		R2081	J1
L1025	L1190149	M. RFC	1uH			TH2002	G9090020	Thermistor		R2082	J1
L1026	L0021520	Coil				TH2003	G9090020	Thermistor		R2083	J1
										R2084	J1
CV1001	L4020091	Helical Resonator								R2085	J1
CV1002	L4020092	Helical Resonator				XF2001	H1102119	XTAL Filter	13M15A	R2086	J1
										R2087	J1
J1001	P0090528	Connector				R2001	J24205682	RES. Chip	1/10W 6.8k ohm	R2088	J1
						R2002	J24205473	RES. Chip	1/10W 47k ohm	R2089	J1
						R2003	J24205223	RES. Chip	1/10W 22k ohm	R2090	J1
PJ1001	P1090210	Connector				R2004	J24205680	RES. Chip	1/10W 68 ohm		
PJ1002	P1090210	Connector				R2005	J01225331	Carbon Film RES.	1/6W 330 ohm	R2091	J1
						R2006	J24205470	RES. Chip	1/10W 47 ohm	R2092	J1
JP1001	T9205550	Wire ASSY				R2007	J24205331	RES. Chip	1/10W 330 ohm	R2093	J1
										R2094	J1

(FEX-736-1.2) PARTS LIST

R2008	J01225272	Carbon Film RES.	1/6W 2.7k ohm	PJ	R2095	J24205223	RES. Chip	1/10W 22k ohm	
R2009	J24205150	RES. Chip	1/10W 15 ohm		R2100	J01225104	Carbon Film RES.	1/6W 100k ohm	PJ
R2010	J24205101	RES. Chip	1/10W 100 ohm		R2101	J01225470	Carbon Film RES.	1/6W 47 ohm	
R2011	J24205473	RES. Chip	1/10W 47k ohm		R2102	J24205223	RES. Chip	1/10W 22k ohm	
R2012	J01225103	Carbon Film RES.	1/6W 10k ohm	PJ	R2103	J24205470	RES. Chip	1/10W 47 ohm	
R2013	J24205470	RES. Chip	1/10W 47 ohm						
R2014	J01225471	Carbon Film RES.	1/6W 470 ohm	PJ	VR2001	J51747104	POT.	B 100k ohm	
R2015	J24205101	RES. Chip	1/10W 100 ohm		VR2002	J51745473	POT.	B 47k ohm	
R2016	J24205680	RES. Chip	1/10W 68 ohm		VR2003	J51745224	POT.	B 220k ohm	
R2017	J24205101	RES. Chip	1/10W 100 ohm		VR2004	J51745471	POT.	B 470 ohm	
R2018	J24205331	RES. Chip	1/10W 330 ohm		VR2005	J51745101	POT.	B 100 ohm	
R2019	J24205471	RES. Chip	1/10W 470 ohm		VR2006	J51745222	POT.	B 2.2k ohm	
R2020	J24205473	RES. Chip	1/10W 47k ohm						
R2021	J24205225	RES. Chip	1/10W 2.2M ohm		C2001	K22170215	CAP. Chip	CH 50WV 15pF	
R2022	J24205470	RES. Chip	1/10W 47 ohm		C2002	K22170209	CAP. Chip	CH 50WV 8pF	
R2023	J24205102	RES. Chip	1/10W 1k ohm		C2003	K22170206	CAP. Chip	CH 50WV 5pF	
R2024	J24205560	RES. Chip	1/10W 56 ohm		C2004	K22170235	CAP. Chip	CH 50WV 100pF	
R2025	J24205222	RES. Chip	1/10W 2.2k ohm		C2005	K22170235	CAP. Chip	CH 50WV 100pF	
R2026	J24205222	RES. Chip	1/10W 2.2k ohm		C2006	K22170211	CAP. Chip	CH 50WV 10pF	
R2027	J24205102	RES. Chip	1/10W 1k ohm		C2007	K22170805	CAP. Chip	B 50WV 0.001uF	
R2028	J24205103	RES. Chip	1/10W 10k ohm		C2008	K22170211	CAP. Chip	CH 50WV 10pF	
R2029	J24205102	RES. Chip	1/10W 1k ohm		C2009	K22170805	CAP. Chip	B 50WV 0.001uF	
R2031	J24205222	RES. Chip	1/10W 2.2k ohm		C2010	K22170204	CAP. Chip	CH 50WV 3pF	
R2032	J24205331	RES. Chip	1/10W 330 ohm		C2011	K22170235	CAP. Chip	CH 50WV 100pF	
R2033	J24205180	RES. Chip	1/10W 18 ohm		C2012	K22170235	CAP. Chip	CH 50WV 100pF	
R2034	J24205331	RES. Chip	1/10W 330 ohm		C2013	K22170235	CAP. Chip	CH 50WV 100pF	
R2035	J24205180	RES. Chip	1/10W 18 ohm		C2014	K22170211	CAP. Chip	CH 50WV 10pF	
R2036	J24205331	RES. Chip	1/10W 330 ohm		C2015	K22170805	CAP. Chip	B 50WV 0.001uF	
R2037	J24205220	RES. Chip	1/10W 22 ohm		C2016	K22170203	CAP. Chip	CH 50WV 2pF	
R2038	J20206330	Metallic Film RES.	1W 33 ohm		C2017	K22170209	CAP. Chip	CH 50WV 8pF	
R2039	J24205103	RES. Chip	1/10W 10k ohm		C2018	K22170201	CAP. Chip	CH 50WV 0.5pF	
R2040	J24205101	RES. Chip	1/10W 100 ohm		C2019	K22170235	CAP. Chip	CH 50WV 100pF	
R2041	J24205103	RES. Chip	1/10W 10k ohm		C2020	K22170805	CAP. Chip	B 50WV 0.001uF	
R2042	J24205473	RES. Chip	1/10W 47k ohm		C2021	K22170805	CAP. Chip	B 50WV 0.001uF	
R2043	J24205473	RES. Chip	1/10W 47k ohm		C2022	K22170201	CAP. Chip	CH 50WV 0.5pF	
R2044	J24205473	RES. Chip	1/10W 47k ohm		C2023	K22170235	CAP. Chip	CH 50WV 100pF	
R2045	J24205104	RES. Chip	1/10W 100k ohm		C2024	K22170817	CAP. Chip	B 50WV 0.01uF	
R2046	J24205103	RES. Chip	1/10W 10k ohm		C2025	K22170211	CAP. Chip	CH 50WV 10pF	
					C2026	K22170817	CAP. Chip	B 50WV 0.01uF	

	J24205223	RES. Chip	1/10W 22k ohm	C2027	K22170219	CAP. Chip	CH	50WV	22pF
	J24205473	RES. Chip	1/10W 47k ohm	C2028	K22170210	CAP. Chip	CH	50WV	9pF
	J24205474	RES. Chip	1/10W 470k ohm	C2029	K22170817	CAP. Chip	B	50WV	0.01uF
	J24205221	RES. Chip	1/10W 220 ohm	C2030	K22170817	CAP. Chip	B	50WV	0.01uF
	J24205681	RES. Chip	1/10W 680 ohm	C2031	K22170805	CAP. Chip	B	50WV	0.001uF
	J24205102	RES. Chip	1/10W 1k ohm	C2032	K22170817	CAP. Chip	B	50WV	0.01uF
	J24205101	RES. Chip	1/10W 100 ohm	C2033	K22170817	CAP. Chip	B	50WV	0.01uF
	J24205222	RES. Chip	1/10W 2.2k ohm	C2034	K22170209	CAP. Chip	CH	50WV	8pF
	J02225471	Carbon Film RES.	1/6W 470 ohm	UJ	C2035	K22170817	CAP. Chip	B	50WV 0.01uF
	J24205560	RES. Chip	1/10W 56 ohm	C2036	K22170817	CAP. Chip	B	50WV	0.01uF
B-L6	J24205473	RES. Chip	1/10W 47k ohm	C2037	K22170817	CAP. Chip	B	50WV	0.01uF
B	J24205470	RES. Chip	1/10W 47 ohm	C2038	K22170213	CAP. Chip	CH	50WV	12pF
	J24205332	RES. Chip	1/10W 3.3k ohm	C2039	K22170211	CAP. Chip	CH	50WV	10pF
	J24205103	RES. Chip	1/10W 10k ohm	C2040	K22170202	CAP. Chip	CH	50WV	1pF
	J24205103	RES. Chip	1/10W 10k ohm	C2041	K22170211	CAP. Chip	CH	50WV	10pF
	J24205100	RES. Chip	1/10W 10 ohm	C2042	K22170218	CAP. Chip	CH	50WV	22pF
85R	J24205390	RES. Chip	1/10W 39 ohm	C2043	K22170817	CAP. Chip	CH	50WV	9pF
	J24205331	RES. Chip	1/10W 330 ohm	C2044	K22170817	CAP. Chip	B	50WV	0.01uF
	J02225560	Carbon Film RES.	1/6W 56 ohm	UJ	C2045	K22170817	CAP. Chip	B	50WV 0.01uF
	J24205101	RES. Chip	1/10W 100 ohm	C2046	K22170817	CAP. Chip	B	50WV	0.01uF
	J24205471	RES. Chip	1/10W 470 ohm	C2047	K22170817	CAP. Chip	B	50WV	0.01uF
	J24205221	RES. Chip	1/10W 220 ohm	C2048	K22170817	CAP. Chip	B	50WV	0.01uF
	J24205479	RES. Chip	1/10W 4.7 ohm	C2049	K40129004	AL. Electro. CAP.		16WV	10uF
	J24205474	RES. Chip	1/10W 470k ohm						
	J24205474	RES. Chip	1/10W 470k ohm	C2050	K22170817	CAP. Chip	B	50WV	0.01uF
	J24205473	RES. Chip	1/10W 47k ohm	C2051	K22170817	CAP. Chip	B	50WV	0.01uF
	J24205102	RES. Chip	1/10W 1k ohm	C2052	K22170805	CAP. Chip	B	50WV	0.001uF
	J01225101	Carbon Film RES.	1/6W 100 ohm	PJ	C2053	K22170805	CAP. Chip	B	50WV 0.001uF
	J24205101	RES. Chip	1/10W 100 ohm	C2054	K22170805	CAP. Chip	B	50WV	0.001uF
	J24205680	RES. Chip	1/10W 68 ohm	C2055	K22170805	CAP. Chip	B	50WV	0.001uF
	J24205330	RES. Chip	1/10W 33 ohm	C2056	K22170805	CAP. Chip	B	50WV	0.001uF
	J24205181	RES. Chip	1/10W 180 ohm	C2057	K22170227	CAP. Chip	CH	50WV	47pF
	J24205681	RES. Chip	1/10W 680 ohm	C2058	K22170227	CAP. Chip	CH	50WV	47pF
	J24205689	RES. Chip	1/10W 6.8 ohm	C2059	K22170805	CAP. Chip	B	50WV	0.001uF
	J24205681	RES. Chip	1/10W 680 ohm	C2060	K22170817	CAP. Chip	B	50WV	0.01uF
	J24205331	RES. Chip	1/10W 330 ohm	C2061	K22170817	CAP. Chip	B	50WV	0.01uF
	J24205272	RES. Chip	1/10W 2.7k ohm	C2062	K22170208	CAP. Chip	CH	50WV	7pF
	J24205101	RES. Chip	1/10W 100 ohm	C2063	K22170817	CAP. Chip	B	50WV	0.01uF
	J24205222	RES. Chip	1/10W 2.2k ohm	C2064	K22170817	CAP. Chip	B	50WV	0.01uF
	J24205471	RES. Chip	1/10W 470 ohm	C2065	K22170213	CAP. Chip	CH	50WV	12pF
	J24205103	RES. Chip	1/10W 10k ohm	C2066	K22170805	CAP. Chip	B	50WV	0.001uF
8k ohm	J24205151	RES. Chip	1/10W 150 ohm	C2067	K22170207	CAP. Chip	CH	50WV	6pF
47k ohm	J20306221	Metalic Film RES.	1W 220 ohm	C2068	K22170817	CAP. Chip	B	50WV	0.01uF
22k ohm				C2069	K22170817	CAP. Chip	B	50WV	0.01uF
68 ohm	J24205103	RES. Chip	1/10W 10k ohm	C2070	K22170817	CAP. Chip	B	50WV	0.01uF
330 ohm	J24205102	RES. Chip	1/10W 1k ohm	C2071	K22170817	CAP. Chip	B	50WV	0.01uF
47 ohm	J24205689	RES. Chip	1/10W 6.8 ohm	C2072	K22170817	CAP. Chip	B	50WV	0.01uF
330 ohm	J24205102	RES. Chip	1/10W 1k ohm	C2073	K22170817	CAP. Chip	B	50WV	0.01uF

PARTS LIST (FEX-736-1.2)

C2074	K22170817	CAP. Chip	B	50WV	0.01uF	L2005	L1190148	M. RFC	10uH
C2075	K22170817	CAP. Chip	B	50WV	0.01uF	L2006	L1190149	M. RFC	1uH
C2076	K22170211	CAP. Chip	CH	50WV	10pF	L2008	L0020679	Coil	
C2077	K22170817	CAP. Chip	B	50WV	0.01uF	L2009	L1190149	M. RFC	1uH
C2078	K22170219	CAP. Chip	CH	50WV	22pF				
C2079	K22170817	CAP. Chip	B	50WV	0.01uF	CV2001	L4020094	Helical Resonator	
C2080	K22170219	CAP. Chip	CH	50WV	22pF	CV2002	L4020093	Helical Resonator	
C2081	K22170805	CAP. Chip	B	50WV	0.001uF	CV2003	L4020094	Helical Resonator	
C2082	K22170215	CAP. Chip	CH	50WV	15pF	CV2004	L4020094	Helical Resonator	
C2083	K22170211	CAP. Chip	CH	50WV	10pF				
C2084	K22170206	CAP. Chip	CH	50WV	5pF	J2001	P1090348	Connector	
C2085	K22170207	CAP. Chip	CH	50WV	6pF	J2002	P1090296	Connector	
C2086	K22170805	CAP. Chip	B	50WV	0.001uF	J2003	P0090527	Connector	
C2087	K22170817	CAP. Chip	B	50WV	0.01uF				
C2088	K22170817	CAP. Chip	B	50WV	0.01uF	PJ2001	P1090255	Connector	
C2089	K22170817	CAP. Chip	B	50WV	0.01uF	PJ2002	P1090255	Connector	
C2090	K22170211	CAP. Chip	CH	50WV	10pF	PJ2003	P1090210	Connector	
C2091	K22170817	CAP. Chip	B	50WV	0.01uF	PJ2004	P1090210	Connector	
C2092	K22170817	CAP. Chip	B	50WV	0.01uF				
C2093	K22170805	CAP. Chip	B	50WV	0.001uF	JP2001	T9205551	Wire ASSY	
C2094	K22170805	CAP. Chip	B	50WV	0.001uF	JP2002	T9205592A	Wire ASSY	
C2095	K22170805	CAP. Chip	B	50WV	0.001uF				
C2096	K22170221	CAP. Chip	CH	50WV	27pF		T9317810	Wire ASSY	
C2097	K22170805	CAP. Chip	B	50WV	0.001uF		T9311203	Wire ASSY	
C2098	K22170805	CAP. Chip	B	50WV	0.001uF				
C2099	K22170805	CAP. Chip	B	50WV	0.001uF		L9190001	Ferrite Beads	
C2100	K22170805	CAP. Chip	B	50WV	0.001uF				
C2101	K22170204	CAP. Chip	CH	50WV	3pF		R0124510	Shield Plate	
C2102	K22170204	CAP. Chip	CH	50WV	3pF		R0124520	Heatsink Plate	
C2103	K22170215	CAP. Chip	CH	50WV	15pF		R0124530	Heatsink Plate	
C2105	K22170805	CAP. Chip	B	50WV	0.001uF		R0109760	Nut Spacer	
C2106	K22170207	CAP. Chip	CH	50WV	6pF		R6112070	Spacer	
C2107	K22170207	CAP. Chip	CH	50WV	6pF		R6018771	Booster Screw	
C2108	K22170215	CAP. Chip	CH	50WV	15pF		R6119130A	Spacer	
C2110	K40129004	AL. Electro. CAP.		16WV	10uF		R0125560	Holder	
C2111	K40129004	AL. Electro. CAP.		10WV	100uF		R0122640	Shield Plate	
C2112	K22170805	CAP. Chip	B	50WV	0.001uF				
C2113	K40129004	AL. Electro. CAP.		16WV	10uF				
C2114	K22170805	CAP. Chip	B	50WV	0.001uF				
C2115	K22141809	CAP. Chip	B	25WV	0.1uF				
C2116	K22170805	CAP. Chip	B	50WV	0.001uF				
C2117	K40129004	AL. Electro. CAP.		16WV	10uF				
C2118	K22170805	CAP. Chip	B	50WV	0.001uF				
C2119	K22141809	CAP. Chip	B	25WV	0.1uF				
C2120	K40129004	AL. Electro. CAP.		16WV	10uF				
C2121	K22141809	CAP. Chip	B	25WV	0.1uF				

C3026
C3027
C3028
C3029
L3001
P3001
JP3001
RL3001

1200MHz PA UNIT			
Symbol No.	Part No.	Description	Device
	F2953101A	Printed Circuit Board	
	C029531AA	PCB with Components	
Q3001	G1090712	IC	M57762
D3001	G2090132	Diode	1SS55
D3002	G2090118	Diode	1SS97
D3003	G2090027	Diode	1SS53

C2122	K22170805	CAP. Chip	B	50WV	0.001uF	R3001	J24205472	CARBON FILM RES.	1/10W	47k ohm
C2123	K40109024	AL. Electro. CAP.		10WV	100uF	R3002	J31309002	RES. Chip	1W	0.1 ohm
C2124	K22170805	CAP. Chip	B	50WV	0.001uF	R3003	J31309002	RES.	1W	0.1 ohm
C2125	K22170221	CAP. Chip	CH	50WV	27pF	R3004	J31309002	RES.	1W	0.1 ohm
C2126	K22170805	CAP. Chip	B	50WV	0.001uF	C3001	K22170202	CAP. Chip	CH	50WV 1pF
C2127	K22141809	CAP. Chip	B	25WV	0.1uF	C3002	K22170202	CAP. Chip	CH	50WV 1pF
C2128	K22170202	CAP. Chip	CH	50WV	1pF	C3003	K22170805	CAP. Chip	B	50WV 0.001uF
C2129	K02172059	Ceramic CAP.	CK	50WV	0.5pF	C3004	K22170805	CAP. Chip	B	50WV 0.001uF
C2130	K22170201	CAP. Chip	CH	50WV	0.5pF	C3005	K22170202	CAP. Chip	CH	50WV 1pF
C2131	K22170201	CAP. Chip	CH	50WV	0.5pF	C3007	K22170805	CAP. Chip	B	50WV 0.001uF
C2132	K22170211	CAP. Chip	CH	50WV	10pF	C3008	K22170202	CAP. Chip	CH	50WV 1pF
TC2001	K91000104	Variable CAP.	3pF			C3009	K22170211	CAP. Chip	CH	50WV 10pF
T2001	L0020907	Coil				C3010	K40129004	AL. Electro. CAP.		16WV 10uF
T2002	L0020907	Coil				C3011	K22170805	CAP. Chip	B	50WV 0.001uF
T2003	L0020907	Coil				C3012	K22170805	CAP. Chip	B	50WV 0.001uF
T2004	L0020907	Coil				C3013	K22170211	CAP. Chip	CH	50WV 10pF
T2005	L0020907	Coil				C3014	K40129004	AL. Electro. CAP.		16WV 10uF
T2006	L0020907	Coil				C3015	K22170805	CAP. Chip	B	50WV 0.001uF
T2007	L0020907	Coil				C3016	K22170211	CAP. Chip	CH	50WV 10pF
T2008	L0021736	Coil				C3017	K22170805	CAP. Chip	B	50WV 0.001uF
T2009	L0021736	Coil				C3018	K40129004	AL. Electro. CAP.		16WV 10uF
T2010	L0020907	Coil				C3019	K22170805	CAP. Chip	B	50WV 0.001uF
T2011	L0021736	Coil				C3020	K22170201	CAP. Chip	CH	50WV 0.5pF
T2012	L0190007	Coil				C3021	K22170202	CAP. Chip	CH	50WV 1pF
T2013	L0020907	Coil				C3022	K21170002	Feed Through CAP.		50WV 0.001uF
T2014	L0020907	Coil				C3023	K21170002	Feed Through CAP.		50WV 0.001uF
T2015	L0020907	Coil				C3024	K21170002	Feed Through CAP.		50WV 0.001uF
T2016	L0020907	Coil				C3025	K21170002	Feed Through CAP.		50WV 0.001uF
L2001	L1190149	M. RFC	1uH							
L2002	L1190148	M. RFC	10uH							
L2003	L1020693A	RFC								
L2004	L1190149	M. RFC	1uH							

(FEX-736-1.2) PARTS LIST

C3026	K21170002	Feed Through CAP.		50WV	0.001uF					
-------	-----------	-------------------	--	------	---------	--	--	--	--	--

		CAP.	
C3027	K22170201	CAP. Chip	CH 50WV 0.5pF
C3028	K22170201	CAP. Chip	CH 50WV 0.5pF
C3029	K02172059	Ceramic CAP.	CK 50WV 0.5pF
L3001	L0020678	Coil	
P3001	P1090209	Connector	
JP3001	T9205537	Wire ASSY	
RL3001	M1190042	Relay	G4Y-15ZP
	L9190001	Ferrite Beads	
	Q5000036	TP-G	MK-1095
	T9317823	Wire ASSY	
	T9317800A	Wire ASSY	
	T9317822	Wire ASSY	
	R4083840B	Booster Heatsink	
	R0511080A	Shield Cover PA	
	R0124500	Shield Plate PA	
	R7043900	Insulator Board B	

PJ

1pF
 1pF
 0.001uF
 0.001uF
 1pF
 0.001uF
 1pF

10pF
10uF
0.001uF
0.001uF
10pF
10uF
0.001uF
10pF
0.001uF
10uF
0.001uF
0.5pF
1pF
0.001uF
0.001uF
0.001uF
0.001uF